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Wright. A disquisition on the ancient history of medicine. 1855 Class 3165,55



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## A DISQUISITION

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ON THE

# ANCIENT HISTORY OF MEDICINE;

COMPRISING CRITICAL NOTICES OF THE

## ORIGIN OF MEDICAL SCIENCE.

ITS

VICISSITUDES IN THE REMOTEST TIMES,

AND OF ITS

RECONSTRUCTION AND FINAL ESTABLISHMENT BY THE GREEKS.

BY THOMAS L WRIGHT, M. D.

## Class 3108.55

1858 April. 21.

The Boston Soc. for Med. Obersations.

## PREFACE.

In submitting the following *Disquisition* to the public, I entertain no hopes of receiving a pecuniary reward. In this age of negro shows and negro literature, few books pretending to utility of design—coming from sources so unfortunate as to have no pretension to an admixture with the blood of the much admired Ethiopian—can be expected to receive the same "material" encouragement that greets the appearance of a negro tale.

I do not submit these pages to the public eye, from any vain or idle impulse. I expect they contain facts, and connections, and suggestions, that may be instructive to the young,—and to some who are no longer young:—to the medical practitioner, and to many whose pursuits are different from the practice of medicine—else I would not publish them.

In these writings, to avoid unnecessary bulk, I have taken no notice of the multitude of sterile facts related concerning medicine, by historians.—
Those yet possessing vitality—having an influence, and forming animated and creative connections with each other, and with the ideas of the mind—are the ones employed in this composition.

Should this publication be favorably received, it will be followed by a disquisition upon the condition and influence of medicine in more modern times;—containing remarks upon the character, acquirements, and powers of such men as Hippocrates, and Aristotle,—upon the state of medicine in the Macedonian Empire, and among the successors of Alexander,—and upon its introduction into Rome, and its condition there, till the times of Galen and Celsus.

Bellefontaine, Ohio, 1855



## A DISQUISITION ON THE ANCIENT HISTORY OF MEDICINE.

#### CHAPTER I.

#### THE UTILITY OF THE STUDY OF ANCIENT MISTORY.

Disposition to underrate the wisdom of the Ancients—Causes of it—Bigotry—Vanity— No progressive maturity of the Human Mind from age to age—The scope of Mind, in all ages of the world, infinite; also, in all ages of the individual—Historical Illustrations—Intellectual Pride of the age, injurious to its progress—History an Unerring Exemplar of Human Nature.

Much has been written in derogation of the wisdom of the ancients. It is a weakness, with some, to believe that but little good can result from a study of the characters and precepts of antiquity; because, in the remote periods of the world, the light of modern civilization did not shine, and the effulgence of the later and purer systems of religion was unseen. Alarm, lest too much admiration of the characters of the more illustrious men of the ancient world may exert a hurtful influence upon the religious faith of the student, exists in the breasts of many eminent men of the present time. So far, indeed, has an antipathy to the ancients been carried, that the Classics are interdicted in not a few seminaries of learning in Christian communities. This is exhibiting a spirit as narrow and selfish as the most bigoted could desire. However sufficient the Koran may appear to the disciple of Mahomet for all the exigencies of justice, of law, of religion, and morals; and, however true it is, that the Bible is an ample guide in every moral relation between man and man, and man and the Creator—it is certain that neither the Koran or the Bible is sufficient to guide man in the various relations which he bears to the physical and intellectual world. It is scarcely necessary to appeal to universal experience, to show that an implicit reliance upon the

creed of any religious organization, either Pagan or Christian, for a solution of all the ordinary duties of life, and an explanation of all the phenomena of nature, leads to endless confusion, error, persecution, and pitiless cruelty. It will not do to tie down all the great and magnificent manifestations of God, through nature, to a belief. The mighty acts of the Eternal, can not be bounded by the feeble lines of any single creed; nor can the boundless impulses of the soul be restrained by the ordination of Councils, or confined by the shackles of bigotry.

Man can not know everything; yet, the attempt to establish the lines of duty by finite definitions of infinite truths, is assuming an ability to comprehend all the phenomena of nature. There is no royal road to knowledge. There is no philosopher's stone.

No doubt but much just criticism has been called forth by a too blind adoration of everything ancient. To ignore the present and passing ideas, and dwell altogether in the crumbling sarcophagus, or the mouldering tombs of the ancients, is puerile, and cowardly. The pride of man, nor his strength nor energy, can die forever, or only exist in fable and song-to point a moral or turn a tale. Still, the weakness of leaning upon the memory of the good and great who have ran their course and dropped into honorable graves, is not an unamiable one. Neither is it quite an unprofitable one. To honor the deserving that have gone from the scenes of earth to praise their virtues, and tell the story of their struggles and adversities, and of the final triumphs of their perseverance in goodness and wisdom-is to encourage each other to imitate them, that we too, may be remembered in the grateful praises of posterity. The love of fame—that remembrance which springs from the hearts of those who may be benefitted by us, and who are thankful that we have lived-is no selfish sentiment. It springs from the constitution of that immortal part which is in every man; and which, in the wise and good, seizes every opportunity to perpetuate the memory of its emotions. To be wise, is to receive fame; to the virtuous, it will be bright, and useful to those who may come after; in the vicious, to whose memory the luxury of death is denied, it will serve as a warning to posterity. It may be said with truth, that any evil that has arisen from a servile adulation of the ancients, is in danger of being exceeded by a rising distrust of them.

In addition to these reasons for looking upon the ancients with the suspicion and distrust, that influence some, there is a certain vanity which has seized upon minds that should be above such an impression, which scoffs at all things pertaining to antiquity, as though unworthy of the attention of modern inquirers. imitating, or even tolerating the admirers of the ancients, there are many who will suffer no age of the world to be compared with the present, and look upon all things that are eld with great disrespect, and oftentimes contempt. But this opinion of the ancients is not always the consequence of pure vanity. It is occasionally the result of an incomplete experience. A distrust of the ancients has existed in a number of ages anterior to our own. of wisdom and perfection of our immediate forerunners have been found to be, to a great extent empty; and some are apt to judge of the ancients by these, and to form very erroneous conclusions in consequence. It will be well for the credit of antiquity, as well as for the interests of posterity, if the actual value of the knowledge of this age, shall not be adduced as an evidence of the utter worthlessness of all faith in the ancients.

As modern vanity and self-sufficiency are especially reprehensible in the medical profession—which should eschew all passion and egotism, in the search and investigation of the truths which pertain to the medical sciences, and as there is much reason to fear that the medical profession is not behind any other, in hugging the pleasing delusion of modern perfection to its bosom—it will not be amiss to inquire into the truth of the position, that intellect, in modern times, is more exalted in its character than in ancient.

This inquiry, especially in its relation to medicine, can not be more properly entered upon than by a quotation from a celebrated and useful medical work. Dr. Paris, in his introductory lecture, printed in his Pharmacology, remarks:

"It has been very justly observed that there is a certain maturity of the human mind acquired from generation to generation in the mass, as there is in the different stages of life in the individual man. What is history, when thus philosophically studied, but the faithful record of this progress? pointing out, for our instruction, the various causes which have retarded or accelerated it, in different ages and centuries."

In this attempted analogy between the life of the race and the life of the individual, as is very often the case in analogies, stern and rugged truth is cast into the shade by the tinsel of theory. Generalizations are frequently dangerous; for, although comprehensive, and very often sublime, they are sometimes entirely false, and usually are imperfect. Had the author of the Pharmacology been as anxious to avoid the errors arising from analogy in the words under consideration, as he has been successful in their exposure in some other instances, they would never have been written by him. And that he was not so, is more remarkable, from the fact that the idea he wishes to impress is not original with him. It is quite natural that one should be blind to the demerits of his own begotten; but it is generally the case, that people are clear-sighted as to the faults of all others.

There is not the most trivial reason for believing that the human mind becomes more and more matured with the progress of ages. Nor is it at all probable that it increases in innate strength during the course of human life, from infancy to manhood, in the individual.

The instrument of mind is the body. Bodies are organized unlike, and in different degrees of perfection; but from the nature of physical causes, operating externally to deteriorate or modify the organic processes, none are perfect. There is no exception to this fact; nor can there be a rational doubt of it. Human bodies, the instruments of the manifestations of the human mind, being dissimilar and imperfect, mental phenomena themselves cannot be always alike, nor can they be ever perfect. The manifested power of a force must be in accordance with the ability of the instruments through which it operates. No just conception of the power of steam can be obtained from an observation of its action in a tea-pot; nor can the force of electricity be calculated from the phenomena of a galvanic battery. The manifestations of mind, through its human instrumentalities, afford no measure to determine its exact power and latitude in the abstract; nor will they suffice to establish a definite grade or elevation of intellect in individuals. impressions sufficiently marked to originate perceptions in the mind. worthy of its power and extent, be presented to it through its human instruments, the body would instantly perish.

The manifestations of mind may be rendered more striking by improving the power and perfection of the body. But there can be no progress towards perfection in the essential scope of mind itself. for that is infinite. The sun shines more or less dimly in proportion as the mists and exhalations in the atmosphere obscure his light. His perfect brightness, and the full extent of his power never appear. So mind is manifested, and its light is brilliant in proportion to the greater or less opacity of its earthly receptacle. So far from satiating the soul, the triumphs of mind over matter, the widening fields of knowledge, the enjoyments of intellectual fruition, increase its desires, and stimulate its appetites. But hope becomes tantalizing, and the soul longs for freedom from its earthly bonds, that it may mingle-a kindred element, in the rolling flood of Eternity. The aspiration of every soul is the same. It is after immortality. The differences in mental phenomena are not consequent upon inequalities in mental capacity. They are merely differences depending upon time, or fortuitous circumstances. If mind is infinite in its power, and immortal in its duration, it is in all instances, in the abstract, absolutely equal.

While treating of the human mind with reference to the doctrine of its increase in power, and approximation to maturity in the individual, an observation of its character in the infant will not be improper. A just appreciation of the efforts of mind in the infant, compared with their results, must impress the conviction upon the observer, that intellectual power is essentially as great in the infant as in the sage. Is it not as great an intellectual triumph for a child with its new and untrained senses, to become able in the time it does, to lisp the name of its mother, to recognise its friends, and learn the arbitrary alphabet,—as it is in after years, with more perfectly trained mental instruments, to accomplish the sublimest works of genius? Is it not observable, moreover, as discovery advances and the telescope reveals the mighty wonders of the sky, and the microscope the tiny ones of earth,—two worlds shut out from the ordinary senses of the full grown man-that the intellect expands, and the soul rejoices, -not so much in the contemplation of the curiosities presented, as with pleasure and pride upon the discovery of their own powers and capacity? There is no intellectual. straining, or fatigue, in perfectly comprehending the most exalte

knowledge to the ancients, rather than to conjurors, prophets, supernatural revelations, or finally, to an arrogant self-sufficiency. The idea of maturity involves those of decay, dotage,—death. By what authority do gentlemen of this age arrogate to themselves the possession of the virile powers of the human mind?

Ten centuries hence, the light which glares upon the present, and in all ages has cheered the living, and consoled the dying, with the the hope and belief that their generation would be a glorious sun and bright example to all succeeding time-ten centuries hence, that light which now so brilliantly casts its effulgence upon the noon of the nineteenth century, will have grown dim in the shadow of forgetfulness which gathers around the past. It will burn low. It will no longer bewilder the understanding with the glare of half revealed truth, nor dazzle the mind with the glitter of tinseled sophistry. Then, the sober, unprejudiced tests of wisdom will be applied to our age and to ourselves; and an impartial judgment will be rendered upon our merits, with respect to those who have preceded. us, and in view of our advantages. Unfortunately, the wicked and the silly cannot always die; and it is much to be feared that the student of history will discover in the grave of this age, the remains of more base ignorance, and blind superstition, and unpitying avarice, than have ever darkened the records of any other single generation. that has existed in the world The god which now absorbs the soul of the world is money. Its religion is a studied imposition. Its philosophy an inexplicable confusion of supernatural revelations and superstitious dogmas; while the politics of this proud age, is the successful perversion of truth. This is a dark and repulsive picture to look upon; but all is not pleasant that is profitable. Unpalatable truths sometimes cause the giddy to reflect soberly, and may lead to good resolutions.

Man is born to the customs of his ancestors. Born, reared, and living surrounded by the influences of those who have preceded him, he is unaccustomed to hear their principles brought into disrespect. Conforming to them, they become at length most convenient to him, and he is blinded to their imperfections. Under such circumstances, it requires the most sensitive intelligence to perceive their defectiveness, when it actually exists, and, after even feeling it,—the most brilliant and penetrating intellect to indicate in what it really con-

sists. Ascertaining and remedying the imperfections of custom. has always commanded the admiration of the wise, and called forth the grateful feelings of all; while the reformation of evils which have no existence, engages the wonder and credulity of the ignorant. To forestall presumption and prevent imposition, it is better to attentively consider the ancients; to observe the influence they have exerted in the formation of the character of mind, of belief, of prejudice: to examine the marks which the ancient world has impressed upon this—with a view to preserve such as are found to accompany good, and to erase, if possible, such as are attended by evil. And the present inquiry relative to medical science among the ancients, may well occupy the attention of the gentlemen of leisure and the general reader, from the consideration, if from no other, that the profession of medicine, is, of all others, the least indebted to the Hebrews for its rise, progress, prejudices, and its injurious and beneficial influences.

Besides being a profitable, it is always an interesting task, to look back and search the records of antiquity, and note the persons and events that have most deeply marked the characters of succeeding generations. It is interesting to enter into the presence of the mighty dead, and, through the introduction and acquaintanceship afforded by history, converse familiarly with them as with living men, and observe their language, their motives, and their thoughts, upon the spot and at the time. History removes the dark veil of antiquity. By its agency, as by a breeze upon the ocean of time, the mists of centuries are rolled away. Very interesting, indeed, is the history of the past. Events of great importance and lasting influence occurred in the most remote periods of time. The world was "created in the beginning." Despite the selfish spirit which would fain flatter us to the contrary, the world has undoubtedly forgotten more than it knows.

But there is no history of the future. The pages upon which will be recorded the remainder of the life of the world are yet virgin. They are not yet stained with the story of the violence of nation towards nation, and the oft-repeated tale of man's inhumanity to man. Trembling, fearing, sighing—conscious of threatening dangers and horrors, but seeing them not, nor knowing how soon he may stumble, or fall to rise no more—man pursues his way through

life. Excepting the light afforded by inspiration, there is but one source whence a single glimmer of brightness can fall upon the path of man in his dubious journey. That light is the reflection of antiquity upon futurity, cast by history as by a mirror. By knowing what has been, an idea may be formed respecting what will be, or, at least, what can be. By tracing the steps of others, men may learn to guide their own. In this view, frequent and earnest search into the events and circumstances of antiquity becomes as instructive as it is interesting.

There is a final interest in the contemplation of the characters of antiquity. It is that which may be derived from reflections based upon the truths of history—the records of experience—concerning the nature of man, and the impressibility of his character.

### CHAPTER II.

THE ADVANCED CONDITION OF SCIENCE IN REMOTE AGES 'OF THE WORLD.

Extreme antiquity of science—The most ancient knowledge of men, perfect—Longevity of the ancients favorable for acquiring knowledge—favorable also to tradition—Tradition the only book in the first ages of the world—Accumulation of facts—Their arrangement into groups—Monuments—Hieroglyphics—Letters—Intellectual advancement among the survivors of the deluge—Dissipation of knowledge consequent upon the dispersion of markind—Casual circumstances bearing upon the condition of knowledge in different countries.

To form correct estimations concerning the state of intellectual advancement which existed in very remote times, it is necessary to consider, attentively, what is known of the circumstances which then surrounded the human mind, and which would most probably leave upon it the most indelible impressions. To verify, and render definite as possible, opinions thence derived, a study of the actual condition of knowledge, together with the influence which skill and science exercised upon the motives and conduct of men - in the earliest periods when history becomes credible -- is indispensable. Sciences and useful arts are not of rapid growth. They are not the products of a night, that wither in a day; nor are they the gilded spawn of an hour, to dit from flower to flower, with butterfly wings, for a little time, then disappear forever. They are the results of long and toilsome experiences, many times repeated, and many times modified and verified. If, then, in the beginning of history, sciences are described as fixed, useful and complicated, the inference is natural, and just, that they have come down from ages beyond the pen of history; and that they owe their origin, if not their perfection, to men, times and circumstances, of which now the world can have no knowledge. So old, indeed, are many of the useful arts, that the most ancient traditions concerning them, ascribe their discovery or invention to supernatural agencies, and fabulous exigencies.

It is common to commence inquiries respecting the origin of all practical experience, with the deluge. Knowledge is tacitly supposed to have originated from, and after that period; and all the arts necessary to life, it is usual to infer, began to arise out of, and be influenced by, the immediate circumstances surrounding the survivors of that calamity. Certainly, such an estimate of the unassisted advancement of Nosh and his family in the useful arts, implies but a small degree of respect for the intelligence and proficiency of the antediluvians: and evinces an extraordinary degree of regard for the abilities of those who went out from the ark. Indeed the single-mindedness-which a condition of pristine ignorance, similar to that of the first parents themselves, must imply in the antediluvians - but illy agrees with the advancement and expertness in crimes of which they are described to have been possessed. According to the most generally received opinion, it was the independence of the first inhabitants of the earth, and their determination to learn and judge for themselves of all things pertaining to nature, that caused all the trouble and unhappiness, no only of the world before the flood, but of all mankind since.

But, leaving generalities, and points where history affords but scanty light, and upon which education and prejudices are apt to control the belief, and upon which, moreover, imagination is prone to build labyrinths of useless vagaries, it will not be unprofitable to advance a step nearer towards practical facts, and from observing the condition of man in his primeval state, judge of his impressions and his acts.

Do not the faith, prejudices, and conduct of most persons, throughout the whole of their lives, depend greatly upon impressions received in infancy and childhood? Then, the sensibilities are acute. The mind is free from the influences of sophistry and of falsehood, which it must encounter at a later period. The murky clouds of interest do not obscure the intellectual vision. Egotism, arrogance, and a constant straining to reconcile the pleasures of sense with moral rectitude, do not distort perceptions nor prejudice conclusions. The infant mind,—ready to receive the beautiful impressions of truth, moral, shining, magnificent, or noble, as the case may be,—like pictures, chaste and finely finished upon the spotless canvas,—or, to become daubed with the vulgar carica-

tures of goodness, or blotched with the indelible and disgusting blots of iniquity and falsehood,—is cast upon the shores of time. Casting aside, as irrelevant in the present connection, if not sterile in any, the abstract questions of "will," "circumstances," or "chance," in relation to their influence upon the formation of human character;—the vividness of early mental impressions, and their agency in determining the characters of men, are sufficiently recognised, to make early culture a groundwork upon which to base the hopes and fears attending the young soul in its advent among the practical scenes of life. Let the parent or associates impress the seal of vice or of virtue upon the yielding, absorbing mind of childhood, and some of the marks will remain till death,—in spite of the opportunities, or temptations and strifes of life.

Such is the case, also, with mankind in its existence as a whole. In the infancy of the world, the characters impressed by nature upon mind, were necessarily of the most marked and permanent kind. Many of them, indeed most of them, are yet legible. It is impossible to forget some of the more important lessons which an intercourse with the physical world impresses upon the understanding, because nature constantly repeats many of her precepts. However much the pride of genius or aptness, may engender the belief, that man is the architect of his own fortunes—that epochs and eras arise in the course of time, convulsing and overthrowing all things old, and making everything new, and strange, and better, through the force of the progressive maturity of mind—yet, a very little dispassionate observation will convince a reasonable mind that the present age bears the characters of the ancients upon it; and a little more consideration will carry the conviction, that the latest generation will carry them, deeply impressed upon it, down to the grave.

Considering the relations between man and the Creator, in the earliest times,—the purity of atmosphere, uncontaminated by effluvia arising from decaying animal and vegetable matter, such as must have been thrown together by the waters of the deluge, breeding disease and stupifying both body and mind in times subsequent to that event,—the earliest knowledge, whatever its extent may have been, was undoubtedly of the most accurate kind. Passing by the information derived from a perusal of the Old Testament relative to the proficiency of certain of the descendants of Cain in

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sundry useful and polite arts, an attentive observation of the state of refinement perceptible in those who survived the universal deluge, and in their immediate descendants, proves as conclusively as evidence so remote will admit of, a degree of intelligence, and skill in the antediluvians, not surmised by casual inquirers.

In the earliest ages of the world, the duration of the life of man was very great. This afforded leisure and opportunity to the human being to observe the phenomena of nature, to study the use of the earth and the surrounding elements, to determine his own relations with respect to the globe upon which he was placed, and to study himself, and the influence of his tastes, and conduct upon his conscience;—that is, his relations with his Creator. This extreme longevity also afforded many opportunities for individuals to verify their earlier experience, and impress the knowledge they acquired, and the conclusions at which they arrived, strongly upon their memories. It also extended to them an opportunity of transmitting the knowledge thus obtained, to quite a late posterity.

Tradition was the only volume of our earliest progenitors. Books and records could not have been of use to them. Among them, there existed no necessity for an arbitrary alphabet, to the letters of which might be affixed arbitrary sounds, which, by combination according to certain rules, should result in a written and intelligible language. These were later inventions—the results of a growing necessity. As the years of man's life became cut short. time became a more important object, and it became necessary to seek artificial means, to assist the human mind, in its brief course upon earth, to master in a rapid manner, the wisdom of those who had gone before; - to overtake, as it were, and keep up with the ancients. Fortunately, the all-grasping power and infinite capacity of mind in its abstract nature, rendered possible the arduous undertaking. After a few years' attention to the nature and powers of letters, and man becomes acquainted with written language, he is enabled to acquire in a few weeks, the wisdom which it required a thousand years of observation for the sages of ancient days todigest.

In the beginning of time, men could see, feel, hear, taste and smell. They had, no doubt, in the utmost possible perfection, all the organs of sense. But they could not at once, understand. To arrive

at accurate conceptions of truth, observation and experience were indispensable; and the greatest facilities for observation and tradition were afforded. From such simple facts the extreme accuracy of the knowledge of the first inhabitants of the earth may be safely inferred.

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But knowledge in time, began to accumulate. Facts began to multiply, and to become recognized, and established. The laws of nature, the value of industry, the power of mind over matter, began to be comprehended, and the characteristics of man to become developed. The multiplication of particulars became cumbersome to single intellects, and burdensome to memory. The necessity arose, to arrange facts in groups, to generalize, to classify,—to originate sciences. Finally, to prevent confusion, and obviate a return to darkness and ignorance by a loss of principles, and to assist the new inquirer in the pursuit of knowledge, it became imperative that some record of the whole should be made. Hence arose columns and monuments;—and hieroglyphics and letters followed.

What was the real amount of advancement the antediluvians had made in the art of recording their knowledge, cannot be ascertained. But there is sufficient reason to believe, that their progress in every department of useful knowledge, suited to the peculiar circumstances of their situation, was much greater than many imagine. The best way to determine their actual condition, and their modes of thought and action, is to examine the condition and conduct of those who survived the wreck of the old world, and of those of their immediate descendants, concerning whom history or tradition has left any account. No doubt but Noah and his sons were gentlemen of influence and education, according to the fashion of the times during which they lived. Their children, and their immediate posterity, were, so far as education and the general bent of intellect is concerned, antediluvians to all intents and purposes: for they could not, in a few years, deviate, in any very extraordinary degree, from the customs, and religion, and sciences of their fore-Such deviations, when they are very marked, invariably pre-suppose the lapse of a long period of time, as well as imply the most urgent necessity.

In the dispersion of mankind after the deluge, various directions

were taken by the survivors. Widely different, and widely distant, were the countries which they eventually occupied. In all sparsely settled districts, clownishness, and an inferiority of taste and knowledge, are characteristics of the inhabitants. In localities still less favorable to the expansion of intellect, and the culture of the moral faculties - where, on account of ruffianly neighbors, ferocious beasts, and impediments to agricultural pursuits, a roving life is adopted as the easiest and safest, the highest refinement will degenerate, and speedily too, into gross and savage barbarism. plainer lesson is taught by history than this; and it is confirmed by all experience. As might naturally be inferred, the knowledge possessed by the second progenitors of the human race, when they emerged from the ark, was soon much impaired, and in some places almost entirely dissipated into barbarism and superstition, induced by the wandering, savage life they and their children were generally obliged to lead. And here began, so far as the greater part of mankind were concerned, the first "dark ages."

Nevertheless, all the landmarks of antediluvian skill and proficiency in knowledge, were not entirely overwhelmed by the flood of ignorance that spread upon the intellectual world, and that so quickly followed the great physical deluge. Scattered throughout the history and traditions of nations - and separated by distance, and language, and climate - in the facts that were subsequently collected thence, by the industry of the curious, and the learned, were found many evidences of advancement in the arts and sciences, which, although considered alone, were bare, and almost unintelligible, yet, in the aggregate, they indicate great original perfection and unity in their character. Such especially was true respecting the science of medicine. A careful collection of some of the important, but disjointed particulars recorded at random in the pages of history, of some of the most ancient nations, will suffice to give a good idea of the general advancement and importance of the medical art, in very remote times. These facts and incidents are of more importance as examples and illustrations, in studying the true dignity of medicine among the ancients, than they are as material for a connected history of medical events from the remotest times; or than they are, usually, for definite inquiry into the details concerning the actual substance and body of the science

of medicine among the ancients. It is natural to desire to know the time and manner of the origination of any department of science. Much has been written, and many and conflicting conjectures have been advanced, and some dogmatic assertions have been hazarded. respecting the origin of the science of medicine. Without being influenced by the opinions, or fancies of any one, on this point, it will be best to draw such inferences as the history of medicine will warrant, upon a consideration of the facts which go to constitute it. To prevent confusion, an inquiry should be instituted into the condition of medical advancement in those remote nations which arose after the deluge, in which medicine was not as generally studied or so well fixed in its principles, as were the more glittering and selfish, but more pressingly important, sciences of politics and war. All history teaches, that in remote ages the necessities of the times made great modifications in the learning of different nations. When adventitious circumstances rendered imperative for self-preservation, that the warlike sciences should be well studied for purposes of defense or aggression, such sciences were soon esteemed the most honorable, and the peaceful arts naturally fell into neglect. But where such exigencies did not exist, and all the arts of life could be practiced with equal honor and profit, there we shall have occasion to see those pertaining to peace, -(and not the least among them the art of medicine,)—were preserved with jealousy, and in their ancient perfection.

#### CHAPTER III.

PECULIARITIES IN THE SITUATION OF EGYPT FAVORABLE TO THE

PRESERVATION OF KNOWLEDGE.

Ancient history of medicine incidental — Isolated position of Egypt — Intellectual advancement of its first settlers—Ham, the son of Noah—Menes—Early possession of books by the Egyptians — Athothis — Tosorthos — Egypt the depository of the sciences, rather than the mother of them.

While it may be regretted that the materials necessary for an entire comprehension of the condition of ancient medicine are, perhaps, too scanty, it is a source of satisfaction to know, that, of such as we possess, the authority of very little is questionable. The ancient history of medicine never has been, strictly speaking, a main subject. It has not had the misfortune to incur the especial misrepresentation of any writer of respectability. Nor has it had the greater misfortune of having become the subject of servile eulogism; being so scoured and burnished by a blind and reverential laudation, as to appear to the understanding, like brightened metal in the sun, it being impossible to distinguish the precious from the base; to discern what is true from falsehood.

The history of the physicians of olden times, is mostly incidental. What is said of them, is spoken chiefly on account of their connection with princes, or political events that historians are treating of. They are introduced casually, or digressively—not as connecting links of history, or as the instrumental occasion of historical deeds; but as stubborn realities of sufficient importance, to deserve the compliment of a record; just as an earthquake, or a comet, or volcanic eruption, is noted, and receives a moment's attention. There is, therefore, good reason to notice the slightest allusion bearing upon the subject of medicine, which may be found in the ancient writers. They may be relied upon more implicitly, from the fact that in making them, there existed no cause for exaggeration or detraction.

"We perceive with admiration," says ROLLIN, "that the nearer we approach those countries which were once inhabited by the sons

of Noah, in the greater perfection we find the arts and sciences; so that when men attempted to revive those arts and sciences, they were obliged to go back to the sources from whence they originally flowed." This is no less true than it is complimentary to the ante-diluvian preceptors of Noah and his sons. Yet it must be observed that this remark of the historian must be received with proper allowance for the different circumstances in which the several lines of the posterity of the patriarch Noah were placed,—some being more happily situated for the successful practice and prosecution of the arts and sciences, than others. With this explanation, the remark is strictly true.

There was one spot isolated by position, in a great measure from the influences of the surrounding world, where the wisdom of the aged and veteran fathers of the world was to become especially deposited;—and after remaining sacred and unchanged for ages, it was destined to burst forth at last, and illuminate the deepest recesses of barbarism, and continue to be the study and delight of mankind through all succeeding time.

Ham, the son of Noah, with part of his family, turned his face to the west, and settled in Egypt. This country, surrounded by seas, deserts, and inhospitable wastes, afforded few facilities for migration without its natural boundaries; while the fertility of the soil, the geniality of its climate, and the peculiarity of its annual fertilization by the overflowing of the river Nile, presented the strongest inducements to its inhabitants to remain stationary. Affording, as this country did, every requisite for supporting comfortably a very dense population, its new inhabitants were content to give up roving, and build houses and cities, and turn their attention to the peaceful pursuits of agriculture and learning. Ties of consanguinity, similarity of education, and an absence of intercourse with other people of different tastes and habits, together with a very rapidly increasing population, most naturally would conduce to a degree of gregariousness that would result in the building of cities. Well built cities involve the idea of advancement in the mechanical and mathematical arts, and the various kindred sciences. Cities also, although deleterious to the perfection of animal life, are excellent schools for the mind. The general average of intelligence is raised; for it is more universally disseminated. Human nature in its different phases is greatly developed, and all must read and learn it.

Upon the death of Ham, it seems that his colony had become sufficiently numerous to change the form of its government from family, or patriarchal, to monarchical. Menes, or Misraim, a son of Ham, it is generally conceded, was the first king of Egypt. (B. C. 2,188.) Nearly the whole of Egypt, except Thebais, or Upper Egypt, is said to have been a morass, and incapable of use at the accession of Menes. This, he drained during his reign, and founded within its limits the city of Memphis. [Herod. Eut. xcix.] These incidental legends, confirm the idea of the great antiquity of this king. Menes also introduced, or more probably, promulgated in a formal and legal way, a system of religion—the manner of worshipping the gods, and of offering sacrifices. To him is attributed, moreover, the introduction of luxurious manners and feasts among this subjects.

The reverence which the name of Menes inspires even at this day,—his having been in all ages, regarded as one of the wisest of all the sages of the whole world, and as one of the chief benefactors of the human race,—together with the few broken legends which have come down even to this remote time, concerning his politics, his wars, and domestic improvements,—all conspire to impress the conviction, that he was a most enlightened man. The question arises, how came the star of his intelligence to shine alone amid the pitchy darkness which enveloped the firmament of mind at that distant period, and which shrouded the intellectual world in gloom for many centuries afterwards?

There is nothing unlikely in the supposition, that Menes was himself an antediluvian; that he was born before the flood, and had seen the antediluvian inhabitants of earth; had acquired their habits, learned their knowledge, and witnessed their destruction. Be this as it may, he certainly obtained his education from his father and mother, and his grand-parents, who were antediluvians, born and educated. It may safely be asserted, therefore, that the characteristics and the knowledge of Menes and his family, were essentially antediluvian. This is the explanation of the wisdom of the great Menes. He was an accomplished warrior, a wise legislator, a domestic benefactor, an expounder of religion, a gentleman of

taste—introducing decorum, order, and form into the ceremonies of religion, in the new and cleansed world—and expounding to the growing and inexperienced youth, springing up in a world where all the exemplars of civilization and refinement had been swept away, the principles of politeness in public assemblies, and at public festivities, as they were doubtless practiced by his forefathers. Menes was the child of the ancient world, the recipient of its impressions and its wisdom; the father and oracle of the new, who stamped upon it, the seal of himself and of his fathers.

Extending from Noah to Menes, or, it would probably be better to say, to the immediate descendants of Menes and to his contemporaries, are the links in the chain of time, which bind the intelligence and arts of the new world, to those of the old.

Whether Menes had a knowledge of letters can never be positively ascertained. But that he introduced customs and rules, and instituted laws, which existed sufficiently long to associate his name with wisdom, to the latest posterity, is well known. The supposition is scarcely rational, that any one, at so remote a period of time, could have done this, without having recorded his precepts in some durable manner, for the perusal and judgment of those whe should come after him. The Egyptians were in the possession of books at so early a period of time, that they could give no account of them, except as sacred books, and written by their gods. In the absence of positive testimony on the subject, and in view of the evidences of the remarkable advancement evinced by those who survived the catastrophy of the deluge, it can hardly be esteemed a wild freak of imagination to suppose that antediluvian books, or records in some form, were saved by Noah and his family. Such a supposition might partially explain the chronology of the Egyptian kings, as given by Manetho. This historian was an Egyptian high priest, and flourished about (B. C.) 260. Having free access to the books esteemed sacred, which were in the custody of his order, no doubt can be entertained that he paid particular attention to the oldest, and most highly prized of them. This would carry him to antediluvian records, if there were any in existence. At all events, it would most likely carry him back to such early records, that he would arrive at some notice of profane antediluvian history, written by the survivors of the flood, or by their immediate descendants. Interlineations, mistakes and blanks, which must always occur, in transcribing from time to time ancient and perishing documents, render copies, at last, more or less imperfect. And it is quite possible, that the very great antiquity which Manetho ascribes to the Egyptians, originated not alone from a national vanity, but in part at least, from imperfections of this kind, in the authorities he examined.

There could be nothing more natural than that the descendants of Noah, and among the rest the early kings of Egypt, should preserve some account of their ancestry, and of their condition in times anterior to the deluge; that they should preserve a list of the potentates and dynasties with which their family might have been associated, and to which it might have belonged in those ancient times. Confusion and uncertainty might, thus, easily become mixed with true history; and Manetho confound events and men before the flood, with the early history of the Egyptians. So far back as any knowledge can be ascertained concerning the Egyptian princes and priesthood, they were noted for superior wisdom and learning. They were possessed of books and writings in the earliest ages of their existence; and certain testimony exists to show, that they esteemed the contents of their libraries as one of the most precious of their possessions. "The remedy for the diseases of the soul," was the expressive inscription which they placed over their depositories of books; an inscription as illustrative of a high regard for the medical art, as it was indicative of a veneration for learning.

Athothis, according to Eratosthanes and Manetho, succeeded his father Menes, who was killed by a hippepotamus, in the sixty-second year of his age. Athothis, the same authority relates, wrote a treatise on anatomy. This legend proves nothing, perhaps, respecting the particular point of Athothis's writing upon the subject of anatomy. But it is valuable in the history of the medical profession, as involving, without intending it, the idea of the early perfection of the arts and sciences—of the possession of a written language—and of the arts of preparing suitable instruments of writing—and of the possession of knowledge worth recording,—and also of the early and high regard paid to the profession of medicine. Indeed, if the conjectures which might be justly derived

from it, are correct conclusions, it points to a very ancient source to which medicine owes its origin.

In addition to the story concerning Athothis, it also is asserted that Tosorthos, a king much later, was called Asclepias, by the Egyptians, on account of his medical skill. Tosorthos reigned about B. C. 1950. There can be no rational doubt of the wisdom of the antediluvians, and of the ancient kings and learned men of Egypt.

But, as time elapses, the kings of Egypt cease to be spoken of as scientific and literary men, or as particularly taking interest in the progress of the arts. A few are mentioned as patrons of literature and learning, but not as engaging in either, themselves. The several departments of letters, as well as of religion, at length fell into the hands of the priests, exclusively; while the kings became gradually to occupy a position of mere political, or rather, military importance. All this seems to indicate, that, although some degree of improvement was made in some of the scientific branches, after the establishment of the Egyptian monarchy, it soon languished, and at length ceased altogether.

The Egyptians have ever had the reputation of having been a most ingenious and inventive people. They were certainly very persevering and patient. But it would be entirely impossible for them to occupy their peculiar country, for the space of time that they did; and not acquire much valuable knowledge, suited to their circumstances of life, and suggested by the remarkable phenomena of nature, incident to it. Yet, the conviction that the Egyptians were the parents, or discoverers of the knowledge they possessed, should be admitted with due restrictions. Reasons appear for the belief, that they were the inheritors of much of their information; others may be adduced to show, that they were at length, the simple guardians of it. Egypt was not so much the mother of the sciences, as she was the receptacle and preserver of them.

#### CHAPTER IV.

MANNERS AND CUSTOMS OF THE EGYPTIANS BEARING UPON THE PRESERVATION OF LEARNING, AND ESPECIALLY OF THE SCIENCE OF MEDICINE.

Hereditary descent of occupations in Egypt—Bounds of science limited by legal enactments—No alteration permitted, in the science, and practice of medicine—Utility of the changeless customs of Egypt—Subdivision of the science and practice of physic—Each physician confined in practice to particular species of disease—Examples—Study of anatomy—Human dissections forbidden—Medicine in the hands of the priests—Reasons for believing that they dissected human bodies—Antipathy to human dissections, a natural feeling of the heart—Use of vomits, purgatives, and clysters.

Occupations descended, in the riper days at least, of the Egyptian monarchy, hereditarily. The son followed the business of the father. In some of the avocations of life, this was particularly conducive to the attainment of ultimate perfection. This must have been especially the case, in the mechanical and agricultural arts—those which pertain most nearly to the genius of locality and of climate in Egypt, and which made great advancement there. But the same opportunities for improvement were not extended to the sciences. The priest, the lawyer, the physician—the customs and ceremonies, religious and political, and the funerals—were all restricted, by chains that would bear no lengthening,—whose links were numbered and deemed perfect.

The law prescribed the precise information, facts and principles, which constituted the science of medicine. No change in them, nor addition to them was permitted. The physician had privilege to depart, if he chose, from the practice of his profession as laid down for him in the ancient books, which the approbation and express direction of the law of the land designated as containing the whole of medical science. But should his case then prove unfortunate, and his patient die, or in any way fall short of recovery, the physician forfeited his life. Few had the temerity to risk the

experiment, and all the germs of hope in the breast of the Egyptian practitioner for progress in the medical art, were blasted.

But medicine was not alone the subject of jealous preservation, and pertinacious confinement among the Egyptians. They were equally as exact and uncompromising respecting the practice in their courts of law, and the conducting of all established public ceremonies. Even the kings themselves, were made to conform to rigid rules of daily conduct. They were required to attend to petitions and letters, and all new business, early in the morning. The quantity, quality, and proportions of their food, were accurately prescribed to them. They assisted at the daily sacrifice, when the priest, under the form of a prayer to the gods, administered wholesome moral lectures to them. "A new custom," says Plato, "was a kind of miracle in Egypt." Veneration for the customs of their forefathers—those customs, in the adherence to which, Egypt, from a morass, filled with reptiles and hideous monsters, and evolving deadly vapors, had arisen to a condition of grandeur unknown in other parts of the world—prevented the inhabitants of that country from listening to the voices of fanaticism and deceit, which, under pretence of progress and reformation, might uproot their most venerable and best tested institutions. In the words of Rollin-"All things thus ran in the old channel, and the exactness with which little matters were adhered to, preserved those of more importance."

Perhaps it would be a fruitless undertaking to inquire into the origin of the veneration of old customs by the Egyptians. The philosophic observer will be at no loss to discover the use of it. Many things, and many acts in this world, seem without rational design, and ridiculous. But time unveils the face of mystery; and wisdom, and beauty, and fitness grow upon the features of folly and selfishness. There is use and philosophy in everything; and, if customs are enigmatical to one generation, another will solve the riddle.

The especial utility of the routine and changeless customs of the Egyptians, was the accurate preservation of the advancement they had attained. They were very far in advance of anything like a state of nature; and, while they had nothing to fear by remaining stationary, they had everything to lose by retrogression. And not

they alone,-but the whole world of the present also, although afar off in the unknown future, were deeply interested in preventing the deterioration of knowledge among the Egyptians. The history of the ancient world, philosophy, laws, the arts and sciences, and religion, were all derived directly from Egypt, or have been greatly impressed and modified by Egyptian influence. The whole world was in darkness except the Egyptians. Should they have returned towards barbarism, before the Greeks had time to learn their wisdom, and record it, and disseminate it by colonies, and travelers, and by war,-no one can tell what shade of barbarism, of superstition, of intellectual and moral degradation, would at this moment hover upon the world. Where civilization, enlightenment, and politeness now cultivate the mind and beautify the land, there might have been a race of half-naked savages, dwelling in swamps and fens-fit companions in savageness, as well as in habitation, for loathsome and poisonous monsters. It is by no means pleasant to contemplate these possibilities, or dwell upon the contingencies which prevented them. But from them may be drawn reflections concerning the dependency of the human race, and the utility and influence of all things. This pickling of principles and customs by the ancient Egyptians had a philosophy in it.

These remarks concerning the use of some of the peculiarities of customs among the Egyptians, will serve to illustrate the advantages accruing to posterity from their manner of practicing Notwithstanding the fact that professions and trades were hereditary, and rigidly guarded in practice by positive enactments, and ancient customs, this remarkable nation carried the principle still farther in the science of physic, and divided it into separate and distinct portions. And they adhered as tenaciously to the rule, that a single individual should study and practice but a single department exclusively, in medicine, as they did in the more simple and plain walks of life. Each physician was confined in his practice to a single disease only. Their precise manner of dividing diseases so as to classify them into departments, for the purpose of study and practice, is not known. The high probability however is, that they were not designated according to symptoms affecting usually the general system, but by the diseases incident to prominent organs and members. According to Herodotus, (Eut. lxxxiv.)-"One physician is confined to the study and management of one disease: there are, of course, a great number who practice this art; some attend to disorders of the eyes, others to those of the head; some take care of the teeth, others are conversant with all diseases of the bowels: while many attend to the cure of maladies which are less conspicuous." Such a division of the science of medicine into definite and well defined parts, must greatly have tended to preserve it in its integrity. But the very great imperfection which any system of medicine, however accurate, would exhibit, thus put into practice, must be evident to every physician. If the different diseases to which a part may be subjected, were well enough understood and provided for, the complications, which, in a greater or less degree, accompany almost, if not quite, every disease, either from its commencement. or from some point in its progress, seem to have been disregarded. This was necessarily the case from the nature of things. ing details, generalities are not often understood. From the nature of elements, the characteristics of a compound can seldom be correctly inferred. The elements of medical science were preserved uncontaminated by the Egyptians, but it was reserved for a later nation to combine and generalize them into beautiful compounds, and useful sciences.

As confirmatory of the account of Herodotus, respecting the multiplication of Egyptian physicians, in consequence of the division of the science of medicine, reference may be made to places in very ancient history where physicians are mentioned as a class; and, Egyptians will, generally, be found written in the plural. Thus, Darius Histaspes, in leaping from his horse, twisted his ancle so as to occasion a severe sprain. "He trusted to the skill of some Egyptians, that he had at his court, supposed to be the most skillful of the medical profession." (Herod. Thal. cxxix.) The prime originator of the hatred which Cambyses entertained against Amasis, a king of Egypt, and which resulted in the conquest of that country, was an occulist, sent by the latter to the court of Persia at the request of Cyrus the Great, whose eyes were diseased. (Herod. Thal. i.) Similar examples are so numerous throughout the pages of ancient history, that they may easily be referred to, by all interested in the subject.

In the present state of medical science, a knowledge of anatomy is indispensable in becoming a correct practitioner of medicine. Perhaps, in the remote ages of the world, it might not have been so absolutely essential to become acquainted with the minutia of anatomy, in order to insure success in medical practice, as it is now. The demands of society are usually supplied when its wants are felt. The most careless observer cannot miss noticing the rapid, and almost radical changes in disease, constantly taking place in the human race. Even the most common and standard ailments are powerfully influenced in their types, by impressions produced by prevailing epidemics, and by strange and unknown diseases. It is more than likely, therefore, that disease, generally, and the prevailing constitution of people, in the days of ancient Egypt, were quite different from what are now manifested among mankind. Because the education and practice of the ancient physicians were, in many respects, not the same that are found most profitable at this time, the conclusion would not be just, that they were inferior in skill to the moderns, or that they were not fully competent to treat the diseases of their countries and of their times.

A knowledge of anatomy could not have been very extensive in ancient Egypt. Dissections were not permitted. Except what they obtained from the sacred books upon the subject, and by chance and casual opportunities of observation, the Egyptian physicians had but poor opportunities of increasing their knowledge of the structure of the human body. But the imperfect account which is given of their manner of embalming their dead, indicates some knowledge of the location and character of the organs contained in the cavities of the human body, and, indeed, implies the necessity of becoming acquainted with them. The description by Diodorus, of the embalming process, as far as relates to the cutting into, and emptying the cavities of the body, is but short. Nevertheless it implies a good deal. By means of a peculiar instrument fashioned for the purpose, the brain was extracted from the cavity of the cranium, through the nostrils. An incision was made with a sharp stone into the side of the body, through which the intestines, (and probably the other contents of the abdomen and pelvis,) after being dissected from their adhesions, were extracted. This implies some knowledge of the anatomy of the chief organs contained in the body. Physicians in the armies of Egypt, could not help acquiring much general information respecting the anatomy of the human body. The mode of warfare, in ancient times, was different from that of modern, and more frightful in its results. Most of the wounds inflicted, in battle, were given with sharp and heavy swords. The extensive gashes which were laid open, necessarily revealed more of the inner structure of the body, than the gun-shot wounds of the present time. It would be doing the known providence and wisdom of the ancients injustice, not to believe that every advantage for increasing their knowledge was embraced.

The very fact of Egyptian physicians being restricted to practice upon diseases of a particular part, would seem to claim the conviction, that the form, structure, location, and dependencies of each part, was carefully studied; and, if anatomy was not studied as a whole by any single individual, it received that particular attention in parts, that the practice of physic did.

After all, upon an examination of the advancement made in the medical art in ancient times, not only in Egypt, but, (although in a less degree,) in other countries, it is impossible to reconcile the imputed proficiency of ancient physicians in medical skill, and their success in healing diseases, that are known to be complicated and troublesome, with the meager knowledge they must have had of human anatomy, if the obstacles to its study really were presented to the medical student, that might be supposed, from the statements of some historians upon the subject. This is so evident to medical men of modern times, that they are prone to deny any extraordinary skill to the physicians of antiquity, and to look upon their recorded triumphs over disease, as impostures, or attribute them to the credulity of the times, and the tricks of jugglers. That so limited a knowledge of anatomy as must be supposed to have been possessed by the physicians of ancient times, from an implicit reliance upon recorded history, would have been a just cause for the moderns to doubt the skill of the ancient medical practitioners, is beyond question. But as the evidences are so striking and so numerous, of the great power over diseases, possessed by the fathers of medicine in ancient days, the idea of the gross anatomical ignorance, said to have prevailed among them, must be abandoned.

When it is remembered that in times of antiquity, disease was

vulgarly attributed to the influence of evil or malignant spirits, and that, over these, the priesthood was supposed to exercise the greatest control, and farther, that Egyptian physicians were, from the nature of their calling, priests, (none others having access to the sacred books,) and moreover, when it is considered how important it was for the influence of that order, that, while its members should know all about the cause and cure of disease, the rest of the world should be kept in ignorance and superstition on those subjects.no surprise need appear, that laws should have been popularly promulgated, calculated to stifle ordinary inquiry into the rational causes of disease—and to preserve so important an engine of power as the knowledge and practice of physic in the hands of the sacerdotal order. In such a view of the subject, it is not astonishing that the dogmas of religion should step in, to shield the science of medicine, as practiced in Egypt especially, from the danger of becoming familiarly understood by individuals out of the proper profession of physic. Such a supposition by no means interferes with the probability, that physicians themselves dissected the human body, as minutely as they do at this day. It was always a maxim with the pagan priesthood, that any means was to be employed, the end to be attained through which, would tend to the exaltation of their gods—that is, to their own immediate power and advantage. There was little danger of exposure in the deceit practiced by the ancient priesthood. All the different grades, or departments of the priesthood of ancient times, and of that of Egypt in particular, had their peculiar modes of initiation—their mysteries, their oaths, covenants, and secret rites. There can be but little doubt, but the mysteries of Bacchus had some connection with the medical profession: and there can be no doubt but all these secret societies were instituted to impose upon the credulity of the vulgar,—as well as to impose such penalties and oaths upon the neophyte, as would effectually prevent the betrayal of the knowledge possessed by the order of priests, to the common people.

Quite likely the laws of the priesthood against dissections, were not at all observed by those priests who were themselves interested.

But it must be observed how great is the antipathy of the more modern inhabitants of the world to the practice of human dissection. And it is remarkable that, notwithstanding its acknowledged importance and usefulness, it is, after all, only permitted as a necessary and most disagreeable evil. Most minds refuse to dwell upon the subject, and turn from it, to some more pleasant theme. Indeed, were it not for a kind of tacitly allowed theft, bodies for dissection would be very difficult to obtain at this day; and, were no explanation entered into, and the vulgar knowledge taken upon the subject, future generations would be led to suppose, that the difficulties surrounding the ancient anatomist, were almost equally insurmountable in the present age.

It is well known that in later times, when superstition was, to some extent, overwhelmed in infidelity, dissections were quite common and notorious. "Herophylus dissected the living bodies of criminals, a great number of whom passed through his hands."

Vomits, purges, and clysters seem to have been in common use in Egypt. (Herod. Eut. lxxv.) No doubt can be entertained of their efficacy in preventing sickness, by throwing out of the system morbid matter generated under miasmatic influences, and in assisting the several secreting organs, to eliminate from the body the atmospheric poisons, which prevailed in some parts of Egypt. The dew is said to be very dangerous in Egypt, especially where marshes are left, when the waters of the river Nile have receded, after their annual inundation of the country.

#### CHAPTER V.

THE CONNECTION OF SUPERSTITION WITH DISEASES AND WITH THEIR REMEDIES.

Superstition-Originates in the weakness and vices of men-Its comprehensiveness-Its employment as an element of cure in disease - Charms - Amulets - Incantations - Dreams - Prayers - Fascination - Their use not inimical to an idea of advanced medical science - Human sacrifices in times of pestilence - Indicative of a low state of medical advancement.

In all ages of the world, superstitious rites have been instituted to forestall calamity, to arrest impending misfortune, and to deliver from surrounding danger. Sense of weakness, has always been Prominent in the character of man, notwithstanding his vanity, and arrogance, in times of safety. The utter inability of human power to resist the forces of nature: and of human foresight, to recognise, and provide against malignant influences, operating in surrounding elements to the detriment of the human body—comes home to the memory of man with vivid truthfulness, in the midst of suffering, and of sudden danger. A consciousness of unworthiness, then suggests the idea of atonement; of reparation to offended spirits by sacrifices, consisting of valuable and dearly beloved objects-or of lacerated feelings, and of outrages upon the finer sensibilities of human nature—in deprecation of punishment for past failings, and to secure immunity for the future.

Remote as the existence of man, lasting as the duration of his race, boundless as the field of crime, innumerable as the lives of men, infinite as the capacity of the soul-is superstition.

To describe the impress of superstition upon human character. would be to give a detailed biography of every man that ever lived, and trace his influence, silent or otherwise, upon his fellows. Such a description, were it even possible, would be as unnecessary, as it would be extensive. Every soul can mark the power and swav of superstition within itself. True, in modern times, its atrocious effects are not so public, nor so bloody, as in ancient. Men, by

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meeting upon certain common ground, where they have been driven by the dictates of common safety, for protection against the violence of each other, have agreed upon some general rules, under which any lawful organisation of men is protected in its persons and property, against the violence of every opposing organisation. By tacit agreement, any aggressive faction of men, becomes arraigned before innumerable disinterested ones, and it is bound, by the force of superior numbers, to confine its acts within certain definite limits. Religious persecutions, among others, have, in their more repulsive forms, died away. The Pagan has ceased to destroy, in a great measure, the Christian; the Christian is no longer permitted to torture and murder the infidel, or the heretic, except in the form of regularly declared civilized warfare. The strong arm of the civil law, which is founded upon the selfish principle of individual security, holds happily in check the rage of fanaticism.

The true and only ground-work of all really generous conduct, is the sentiment of charity in the human heart; but the uncompromising hatred towards his erring fellow, which blinded superstition, growing out of a bigoted vanity, incident to the heart of man, plants in the human breast, but slowly and unwillingly gives place to its amiable and benign influence. It is, then, idle to attempt to trace the course of any especial system of superstition, or mysterious rites. These vary in every nation and every clime, and in almost every individual.

It is not at all wonderful, considering the nature of disease in the human body—its mysterious and unexpected advent, and its serious consequences to the sick—that it should have always been attributed, in a great measure, to supernatural causes; and that it should have seemed to call for ceremonies of a religious nature, and for the employment of influences of a mystic power. From the earliest period of time, charms, amulets, and incantations, have accompanied the practice of physic. But, in addition to these, it was too often the custom, with certain ancient nations, to resort to the horrid practice of immolating human victims, to appease the wrath of imaginary gods—especially on occasions of the prevalence of general and fatal epidemics.

The first and more innocent of these instruments of superstition—charms, amulets, and incantations—accompanied medical practice in

its greatest perfection. As might, upon a superficial investigation, be supposed to be the case, their employment does not imply, necessarily, a deficiency in the power of the remedies, or in the accuracy of the skill of the ancient physicians. The thousand sources of fallacy, in medical proof, are too well understood to require digression. The use of charms or amulets, or other mysterious instruments of immunity, while in dread of disease, should sickness not happen to intervene, would naturally impose upon men a faith in their efficacy. Moreover, it is perfectly plain, that sufficient dread of any especial disease, to occasion a resort to supernatural means of prevention, would also suggest the adoption of all the known and rational measures for preserving health. In process of time, special kinds of ornaments became esteemed, for the possession of certain specific virtues. Most likely, trinkets, and the usual ornaments now worn. chiefly to adorn the person took their rise in a superstitious opinion of their efficacy as charms. Such are yet worn by all savage and harbarous nations.

But the faith reposed in the efficacy of the magical effects of charms and amulets, did not entirely depend upon chance, for its establishment. Although such instrumentalities were thought to be particularly useful in hæmorrhage and nervous spasms, or neuralgic pains—which, in their own nature, are usually self-limited—they undoubtedly did great actual good, in preserving an equanimity of mind, and fearlessness of danger, which are always of great effect in repelling the invasion of disease. Abundant evidences of just such results, from the operation of mysterious charms, or remedies that are perfectly inert, are daily witnessed throughout the civilized world. So common is it, for the functions of the body to be influenced by the emotions of the mind, that, in nervous diseases, or in states of the system where the nerves are peculiarly impressible. it is quite frequently only necessary to fix the expectation of the patient, strongly, upon the supervention of certain symptoms, or functional phenomena, in order to secure their occurrence, without the intervention of medicinal agencies, Yet, such facts do not derogate anything from the actual advancement, or intrinsic worth of medical science in the present day; and they should not be allowed to influence, too readily, conclusions respecting the real condition of the medical art among the ancients. It is true.

such influences are generally most usefully employed upon the vulgar or uninformed; but it should never be forgotten that, at least in regard to the art of medicine, most of the world is, and most likely always will be, vulgar and uninformed. It is the nature of man to attribute causes that are imperceptible, to supernatural agencies. It is well known that the natural causes of many serious diseases, belong to the imponderable class of elements. The sick insist, very often, upon a tangible illustration of the reasons of their illness; failing to receive it, or to understand it, they are ever ready to surrender their faith to every offered remedy of a mysterious nature, as adequate to remove an equally mysterious and occult cause of disease.

The forms and modes of applying the remedies of charms, prayers, and other kindred rites, to the cure of diseases, by the ancients, were as various as were their superstitions, and their individual peculiarities. To enter into a minute detail of a great number of them, would render the topic insipid. The ancient Greeks had a form of divination called pharmakeia, "which was usually performed by certain medicated and enchanted compositions of herbs, minerals, etc., which they called pharmaka. Some of them caused blindness, madness, and love; others infected by the touch; others spread their venom far off, and operated upon persons at a great distance. There were others, who wore amulets against these-as the herb moly, the laurel, the sallow tree, and the jasper stone." (Potter's Greek Ant.) The jasper stone was extensively used, by the ancients, as an amulet against disease, as well as a charm to remove it. attention, also, was paid to dreams, by the ancients. Astrology, especially in Chaldea and Egypt, was much practiced, and made great impressions upon the practice of physic. It was very often employed in forming a diagnosis of disease, as well as portentive to the result of enterprises. Its rules were frequently applied to the events and contingencies of human life, and to fathoming the mysteries of fate.

The soothing influence of music, was supposed to have great efficacy in healing diseases, and in chasing away the spirits of melancholy. Its aid was very often employed among the other innocent adjuvants of healing disease, by the practitioners of antiquity. Fascination—(or, probably, as understood by the moderns,

electricity and magnetism)—was employed, in ancient times, as a preventive and cure of disease, as well as for malignant purposes; and many were the rites and ceremonies by which the spell was dissipated. From phenomena common and natural enough, but inexplicable, absurd conclusions, and ridiculous customs, very often spring into existence. It was customary to eat the bones of serpents, as well as to mix them as ingredients, in enchanted combinations, for the purpose of inspiring love — a custom which probably arose from an observation of the power of fascination possessed by that reptile. But a farther pursuit of details upon the subject of the employment of such innocent plans and customs, by the ancients, to assist in the restoration of the sick to health, however interesting in the abstract, will be useless here, as the subject is fully treated of in many different works. To these, the curious may be referred, for all such illustrations and facts, as do not necessarily connect themselves with the lines marked out to be followed in the present inquiry into the condition of ancient medicine.

The bloody and inhuman practice of some nations, of sacrificing human victims, in times of plague, indicates a degree of cruel superstition, incompatible with the refinement and enlightenment, which a successful pursuit of the medical art, always implies in a nation. Where medical skill has really existed, it has always een consulted, and its directions implicitly relied upon, in prefernce to resorting to so horrible a practice as that of immolating luman bodies. It was no love of cruelty-no extraordinary feeling of inhumanity—that prompted people to destroy their children, and tates to sacrifice the lives of their best citizens, on occasions of iniversal disease. The high honors and rewards which successful nedical skill always commanded, sufficiently attest the willingness If the ancients to avoid so terrible an offering, and to rely upon nore happy means of deliverance. Accordingly, the prevalence of nch a custom in a nation, as propitiatory to malignant gods, was Iways accompanied by the existence of darkness, and doubt, and Incertainty in medical practice. Whatever may have been the might and skill of a nation — in law, in politics and war — the prevalence of such a practice, too surely betrays its ignorance and belplessness in the face of disease, and its terror at the stealthy pproach of clammy death.

#### CHAPTER VI.

#### CONDITION OF MEDICINE AMONG THE BABYLONIANS AND PHOENICIANS.

Epochs in intellectual progress different from the eras of political history — Principal epochs in the known history of intellectual advancement — Creation of the world—Revival, and arrangement of ancient learning by the Greeks—Rise of the Christian religion—Discovery of America — Merit not less real, because hidden—Its imperishable nature—Success not necessarily an indication of merit—Nimrod—Custom of the Babylonians respecting the sick — No professors of medicine — Astrologers — Soothsayers — Magicians — Pursuits of war and of traffic inimical to medical science — Human sacrifices of the Canaanites — False position assigned to Ham by the Hebrews.

The eras marking intellectual, moral, and social progress in human acquirements, are quite different from those of great political, and military events. The actual condition of the race of man, in the higher attributes of his character, has little connection with the revolutions of violence. It sympathises but little with the brutal rage of the animal man. Possibly it may be retarded, it is never advanced by the occurrence of those epochs, upon which common history delights to dwell; periods when war, with its devastating ravages-its seiges, its destruction of women and children, its starvation and disease, its rapine and conflagration, and its scenes of mutual slaughter accompanied by mutual curses-fills with hatred the hearts of men, and absorbs their utmost energies. The degrading influences of war and violence, are inimical to the cultivation of the arts of peace, and to all moral and intellectual The lapse of years, and the rise of new generations are alone adequate to neutralize their baleful effects.

The beginning of the world was, of course, the first grand epoch in the history of the race. The knowledge then imparted was perfect—divine. No intellectual haziness obscured the vision, no clouds of sin overshadowed the understanding. The deluge was a mere physical phenomenon. Subsequently to it, the chief object, for a time, was to re-people the earth. In consequence of the migrations, wars, and the unsettled condition of the human

family, much of the true wisdom of the ancient world was lost; or, what little was retained, served only, by its association with error and selfishness, to sustain ridiculous or savage customs. Egypt alone preserved, by a kind of blind reverence, a great part of the learning of the antediluvians. This-dragged to the light, digested, arranged, and promulgated by the Greeks-served as a basis upon which that people builded the beautiful structures of science and civilization, which characterized them as chief actors in the second great epoch in the intellectual and moral history of mankind. third remarkable true era, in this history, may be referred to the period of the dissemination of the principles of the Christian religion: and the discovery of America was a fourth and last great epoch in the history of intellectual progress. All others were but the children of these. The spread of the Mahometan religion; the crusades; the introduction of habits of intemperance into civilized life by the hyperborean nations; the use of tobacco, and tea; even the invention of printing, and the declaration of American independence,—either grew directly out of some of these great epochs, or became necessary to man, from a condition of things arising, indirectly, in consequence of them.

Such facts as these should inspire all young men, and especially Americans, with an ardor for the acquirement of useful knowledge. There is too much hurry in attempting to rise at a station of notoriety, for properly cementing a sufficient foundation for exalted worth. Popular celebrity perishes with the shouts of popular assemblies; while the truly great live over and over again, in the laboratories of the learned, or the closet of the student, through all generations. The tinsel of the actor is thrown aside at the conclusion of the play,—is finally destroyed, or, it may be, employed for the base purpose of decking the bodies of the unworthy;—but true merit, no matter how long or how deeply buried, remains the same; and, although hidden, perhaps, from present observation, ike the bright nugget of pure gold, may be drawn at last from its ong resting-place, and astonish by its beauty, and enrich by its alue, ages and nations far away in the deep future.

The best elaborated wisdom is not always for its own times. It hard to withdraw the attention of a nation or age from some ading idea which absorbs it;—no matter how important the prin-

ciples may be, that are presented for consideration. Sometimes it is wise to store carefully away for others, what those present will not receive, or cannot use,—as the knowledge of the antediluvians was stored and preserved by the Egyptians for the use of the modern world. The appearance of present success is not a criterion of real merit or ultimate respect. Crops of grain may appear excellent in their season, and some even be accounted best, because the crops of other seasons have been cut down, and have passed out of sight! but the record—history—on a comparison of the merits of different seasons, will humble the pretensions of many, and give due honor to the prolific few. So it is with the ages of the world. In the standing field of wheat, cheat and the blasted grain are often counted with the best, and their imperfection not seen; but when all is cut down, and the time of separation comes, the value of the good, and the deformity and worthlessness of the bad will be duly appreciated. So when men die, just judgment will sooner or later be meted out to all—although, during life, this is sometimes impossible. Alexander the Great was glorified to the utmost extent of human ingenuity, in his own country, and in his own time; Socrates was put to death by the order of a court of his countrymen. after a formal trial. Posterity can spare Alexander, but not Socrates.

Nearly at the same time that Menes began to reign in Egypt, his nephew, Nimrod, reigned in Babylon, and his brother, Canaan, settled in the western border of Asia Minor. What is written of Nimrod, after allowing for the peculiarities of the circumstances by which he was surrounded, is very similar to what is stated of Menes. Both appear to have been gentlemen of good acquirements—skilled in war, policy, and legislation. They were builders of cities, and interested in the weifare of their subjects. Of the early history of the Canaanites, not so much is known. But, judging from the proud position they afterwards held, under the name of Phænicians, no rational doubt can be entertained of an ancestry eminent for wisdom.

In Babylon, there existed a singular institution respecting the sick. "Such as are diseased among the Babylonians, they carry into some public square; they have no professors of medicine, but passengers in general interrogate the sick person concerning his ŧ

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halady, that if any person has either been afflicted with a similar disease, or seen its operation, he may communicate the process by which his own recovery was effected, or by which, in any other instance, he knew the disease to be removed." (Herod. Clio, exception) Speaking of this custom, Rollin remarks, "we discover in those early times, the origin of Physic." To this custom, also, Larcher attributes the dawn of medical science. These inferences are not warranted by the existence of the custom. The warlike, and ambitious character of Nimrod, his fearlessness, and notorious contempt for religion, and for the power of the gods, the situation of his kingdom, subject. as it was, to continual interruptions by vagabond tribes of lawless men, amply explain why such a science as that of medicine should give way to the more glaring, and perhaps, more immediately important arts of war and politics. The profession of medicine, must, under such circumstances, have fallen into neglect; until in later days, the explicit assertion of Herodotus, that, "they have no Professors of Medicine," can excite no emotions of surprise.

That the nations of the East, lost, ere long, the knowledge of the science of medicine, appears also, in the fact, that great numbers of astrologers, and Chaldeans, were employed in the courts of Eastern princes, to be consulted in times of disease, as well as of public danger. An extremely common source of fallacy, is to confound sequents with consequents; or, to associate events with agencies. in accordance with measurements of time. The knowledge of astronomy was well understood by the Eastern nations, in very remote times. Beneficent seasons being constantly associated with certain signs in the heavens—the ascendency of certain stars, or the situation of certain constellations, while unfavorable ones were observed to accompany certain different appearances in the heavenly bodies-it is no wonder that such peculiarities should, at length, become regarded as the causes, rather than the accompaniments of terrestrial changes.

To believe the human body to be subject to the same influences that were supposed to act upon nature and the seasons, was but a short and natural transition, or rather extension of faith. Finally, to introduce endless details, and lay down complicated rules, for the examination of the heavenly bodies, and the interpretation of their signs; thus reducing Astrology to the condition of an art, difficult

to learn, and of mysterious power, was merely acting under the commonest traits of human nature.

Soothsayers predicted events upon the authority of signs, depending upon the interpretations of appearances and changes in bodies, either animal or otherwise—which were not astrological.

The class of men called Chaldeans, were, without doubt, the Magi, or Magicians. Eastern nations are extremely expert in the arts of natural magic to this day.

To many, it seems surprising that such characters could have so successfully imposed upon the credulity of the ancients. But it should be borne in mind, that the professors of these arts actually did possess much real knowledge, and that they, without doubt, did do great good, in many instances, by their advice and wise instruction. Having thus secured the general faith of mankind, it was no very difficult task to impose upon it successfully, for a long time. Casting aside the assistance of human judgment, which was in their favor, they had at least an equal chance to succeed in their undertakings, and predictions, as they had to fail.

Considering, then, the low ebb of medical science in the East, it is not strange that frequent resort should be had to the employment of supernatural means of cure and prevention of diseases. When superstition in itself fails in curing diseases, skill in deceiving the senses may often be employed in deceiving the understanding.

Notwithstanding the employment of magical rites, in times of danger, by the Babylonians, the custom of exposing their sick to the inspection of passengers, very plainly implies their belief in the efficacy of natural remedies. Whether this belief was derived from tradition, or from observation, is of no moment. Their conduct declares, that while "they had no professors of medicine," they knew that there were such. So far from pretending to be the fathers of the medical art, they did not pretend to be the possessors of it, even in comparatively late times. As the history of the East advances, the Egyptian and the Greek physicians are observed to have been employed, and munificently rewarded by the oriental princes.

The Phænicians, were also peculiarly situated, although differently from the Babylonians. Their location made them the merchants and carriers between the East and West. Commerce grew

up under their fostering care. Whatever knowledge of navigation they may have been acquainted with, in their earliest ages, was undoubtedly preserved, but that science must also have been greatly improved by them. Their ships traversed every sea, and penetrated every inlet where any thing could be bartered or piratically seized that would satisfy their inordinate thirst for gold. They became wealthy; their merchants were princes. But this searching after that which satisfies the physical appetite only, indicates more or less inattention to the more exalted wants of the mind. It rendered hopelessly latent in the soul, those impulses and desires which compel the mind to seek such intellectual employment as is best suited to its exalted and spiritual nature. In some respects, the characters of nations are like those of individuals. The luxury and refinement of the Phænicians, compared with their superstitition, and their barbarous worship of the gods of heathenism, remind one of some extraordinary genius of eccentricity—one department of whose mind shines forth with unusual and startling brilliancy—filling the observer with admiration-almost with awe-to be but too surely followed by a painful shock at beholding some other department imbecile and drivelling.

Respecting the condition of medicine among the Phænicians, history is quite unsatisfactory. The chief business of the Phænicians was very different from the practice of physic. Historians who treat of them, are busied with their wealth and their commerce. If judgment may be rendered from the conduct of the offspring of the Phænicians, no very exalted position can be awarded to them, either in humanity or in medicine. About (B. C.) 412, while the Carthaginians were besieging Agragentum in Sicily, the plague broke out in their army. To appease the wrath of the gods, whom they supposed to be unpropitious, they endeavored to abate the pestilence by sacrificing a child to Saturn, and by hurling into the sea, numerous human victims, as an offering to Neptune; and it was a customary thing, in times of pestilence, to offer in sacrifice, great numbers of children to their gods, "seeking a remedy for their evils in guilt itself." Such barbarity in the Carthaginians, who may be regard as a true type of their Phænicians ancestors, is certain evidence of their ignorance of the art of medicine. Such a custom appears more shocking and cowardly, as well as vividly indicative of

ignorance as to the means proper for the prevention of disease, when it is remembered, that most pestilence is occasioned by public and domestic offences against the morals of cleanliness, and all are greatly aggravated by them.

However, pestilential diseases were not the exclusive occasions for resorting to the alternative of sacrificing human victims, by the Carthaginians. Their superstition was of the most gloomy kind. They were the true descendants of the Canaanites—the worshipers of Moloch. Conscious of guilt-sensible of offences against conscience, and natural morality, which their pursuits of traffic, and practices of craft, and falsehood, and cruelty, must have constantly kept vividly before their minds, when any great calamity overtook them, or seemed impending, they humbled themselves in the most abject penitence, and delivered over to the fury of their gods, their most valuable possessions. The chief characteristic of the Carginians were a low cunning, which leads to falsehood, and prefers it, as an instrument of success, to knowledge and reason—unbounded avarice, and consequent inhumanity, and great superstition. Their greatest men were their warriors, and they succeded as much by stratagem, and the exercise of their "punic faith," as by science and courage. They were servile and cowardly in adversity, and brutal in the hour of success. They were a people among whom politeness could not advance, and a sympathetic and humane art could not flourish.

During the battle before Himera in Sicily (B. C. 480,) Hamilcar the Carthaginian commander was constantly offering to the gods sacrifices of living men, who were thrown upon a burning pile, and at last seeing he had lost the day he rushed into the flames himself, and there perished. Whether his voluntary death was the effect of superstition or despair, may be a question. More than a century and a half afterwards, when the city of Carthage was in great danger from Agathocles, the citizens feeling guilty from having endeavored to defraud the gods, by substituting base born children in their sacrifices, for those nobly born, endeavored to atone for their fault, by sacrificing two hundred children to Saturn. In addition, it is related that more than two hundred citizens gave themselves up as a similar sacrifice,

As the gloomy and horrible in religion must make a deeper impression upon the minds of devotees, the difficulty of impressing those living under such forms of religion, with generous and humane sentiments, is greater than is met with in operating upon the kindly impulses of men under the control of more beneficent and versatile forms of superstition. One of the greatest difficulties in civilizing savage nations, addicted to the custom of immolating human victims, is to induce them to discontinue that practice.

The fact, then, that the Carthaginians offered human sacrifices in times of pestilence, does not prove that they were regarded in the light of a remedy for disease, but they were employed as a propitiatory sacrifice on all occasions of danger. But the custom indicates great ignorance of medical knowledge among them. great a sacrifice as that of human victims, and of beloved children, seemed to be by them, considered sufficient to warrant and demand of the gods, more success and prosperity than natural means could possibly secure; hence, most likely, the natural causes of epidemical and contagious diseases were not sought after, and the means of their prevention, or mitigation, or cure, were not employed or even known. But be the explanation what it may the Carthaginians were ignorant of the science of medicine. The priests of Moloch and of Saturn were the same. The religion of the Phænicians, 28 well as their progeny and characteristics lived again in Car-The leaders of the people - those who presided over the religious ceremonies, and delivered the oracles of the gods, and uttered commands in their name, had other interests in view, besides the preservation of the science of medicine, or those of a kindred nature. Their power was greater, and their dignity more exalted, in smothering any tendency to enquiry in the minds of men respecting cause and effect, according to the rules of reason, and enforcing a belief of an utter dependance in all things upon the will and power of their gods, that is, upon their selfish directions and Many of the infants doomed to destruction, by fond parents, it is to be hoped, were, after all, preserved and reared by the priests in the secrets and practices of their own order. Such is the most rational explanation of the uninterrupted tyranny the priests held over the Canaanites and Carthaginians, during the whole existence of those nations.

It is no wonder then, that medicine found no advocates among the Carthaginians. "Ignorance is the mother of superstition." It is a principle of the human mind, established by the history of the world, that in no case where natural causes have been ascertained to conduce to any certain effect, will supernatural influences be admitted to have any share in its production. And the proposition may be reversed: that in every country and age, and under every dispensation—Christian, Pagan, or Satanic, every remarkable effect, the cause of which is not apparent, is either publicly or in the heart, attributed to unnatural, unearthly influences. The credulity and incredulity of the human mind, are alike unbounded.

There are some reflections that here naturally present themselves, which, although not intimately connected with the science of medicine, may not improperly be expressed.

The Egyptians, the Babylonians and Phænicians, are the most ancient nations, subsequent to the deluge, that were distinguished for enlightenment. They ran their courses, in different channels, it is true, and in different directions; but they have all found the same great ocean of modern civilization. Their influences have been great and beneficial, in different degrees and in different ways. Science, Commerce, War and Politics, have all been learned from They were all the immediate descendants of Ham-at least their founders and law givers were. Considering these facts, it is singular to observe the vulgar opinions concerning Ham. In the ordinary, and, not unfrequently, in the higher and better educated classes of men, Ham is looked upon with a feeling bordering upon contempt He is considered to be the father of the negro race; and some have ventured to suggest, that he was himself a negro. From what is recorded of Nimrod, of the Egyptians, and of the Canaanites, the intellectual culture of the descendants of Ham was greater in the earlier periods of history, than that of the posterity either of Japheth or Shem. There is no fact of ancient history better authenticated, than that the Canaanites, and among them the Phænicians, were the descendents of Canaan, upon whom fell from Noah's lips, the curse of slavery. Yet the ancient paintings represent the Phænicians as flaxen haired, blue eyed, and of a florid complexion. for the Ethiopians themselves, Herodotus (Polyn. lxx.) expressly describes two different kinds or races of them. Leaving out of view all inferences, respecting the races of men, supposed to have sprung

from Ham, there is another, and a chief cause, for the contempt which is felt for Ham, to this day.

The influence of the Hebrew writings is prominent in religion and history. The Hebrews are the descendents of Shem. Upon their departure from bondage in Egypt, they adopted the determination to seize by violence the lands owned by the descendents of Canaan. The strength of the Canaanites was broken by the division of that people into separate tribes. This, combined with intestinal divisions, rendered the subjugation of this country, a possible project to the Hebrews. Under such circumstances, it was policy in the Israelitish priests and leaders, not only to inculcate the belief of a promise to them of the lands of Canaan, but that the Canaanites had received a special curse, on account of the levity Ham was guilty of, upon an occasion when his father was drunk. The Canaanites, and the Babylonians, both received a large share of imprecation at the hands of the Jewish priesthood. tians, however, escaped, in a good measure, the maledictions of the Hebrews. Possibly there may have remained some sparks of gratitude in the hearts of the Jews, for their ancient preservation and long protection by the Egyptians. They could not forget, that through the advantages allowed them by the Egyptians, they had become numerous and wealthy, and that to their so-called captivity, they owed, if not their very existence as a nation, at least they were prevented by it from falling into the barbarous superstition of the Canaanites. It was common in all ages of the Jewish national existence, to make journeys and visits into Egypt.

It would be an idle task to describe the state of medicine among the Hebrews. Their learning was mostly Egyptian; and much of it, and especially medicine, soon degenerated into the tricks of priestcraft. King Solomon was distinguished among them as a necromancer of great power; and also as a naturalist of ability: (Josephus' Ant., book viii. chap. 2,) but his powers in charms, and in the use of supernatural agencies in the cure of disease, were the most regarded, and are yet celebrated in the traditions of the oriental nations.

#### CHAPTER VII.

STATE OF MEDICINE AMONG THE INHABITANTS OF GREECE, ANTERIOR
TO THE HEROIC AGES.

The ancient Greeks a mixed people—Versatile genius—Favorably situated for pursuit of knowledge—Attention to political science—Knowledge arranged into distinct sciences by the Greeks—Early physicians—Melampus—Source from whence he derived his skill—Stagnation of medical science after the time of Melampus—Causes of it.

The ancient inhabitants of Greece were a mixed people. They came from different countries. The wisest of them emigrated from Phrygia, Phœnicia and Egypt. Cecrops and Danaus from Egypt, Cadmus from Phœnicia, and Pelops, the Phrygian, were the earliest of the distinguished names of Grecian history. Many men of less note, but of illustrious character also, came into Greece in its infancy; either being driven thither by violence, or wandering in quest of adventure.

The natural tendency of such an intercommunication of men of energy and of accomplishment—according to the customs of the several places of their nativity—was to promote inquiry, to produce emulation, to diffuse knowledge and elevate the standard of intelligence. The ancient legends describing the early Greeks, bring to mind a swarm of disturbed bees, about settling upon a newly found hive. There was much humming, and buzzing, and anxiety—were many petty jealousies and combats, and many magnanimous and friendly acts, before a final settlement was made, and order and organization were established.

Even in the remotest periods of Grecian history, a great many incidents are related, evincing great proficiency in the civilized arts. But they are so mingled with savage and barbarous elements, as to afford a clear conception of the mixed character of the people. And after the rougher points of the characteristics of the Grecians became rubbed off, and law and civilization took the place of confu-

sion and incongruity, the character of the individual Greek still partook largely of the versatility and unstable nature of his unsettled ancestry.

It is unnecessary to dwell at length upon the characteristics of the Greeks. The study of Grecian history affords so good an opportunity for learning human nature, that few of those wishing to qualify themselves for correctly estimating the character of mankind, fail to turn to it for information. The peculiarities of the origin of the Greeks, were fortunate for the production of a desire in them, for the possession of knowledge. They were favorable also, for the formation of the characteristics of energy and perseverance among them, which were especially suited to the dangers and difficulties to be overcome by them, in its pursuit; and they afforded them, moreover, the necessary clues to the receptacles whence they might obtain it. Of these advantages, the Greeks were not slow in availing themselves.

But in the inception of the Greek nations, it was first important to establish laws and government—to arrange boundaries, to form alliances, and make treaties. Hence the greatest advancement was first made by the Greeks, in the science of government. arranged, and made available what knowledge they already possessed, in that department of wisdom. They added to it by travelling, and observation, and by the instructions of foreigners. deed, they were busied for several centuries in establishing and perfecting their political, and social, and religious principles, customs, and rites. In the inquiries they instituted, the authorities they examined, and the examples they imitated in such an enterprise, they necessarily must have acquired much collateral information concerning the medical art. In fact, a number of celebrated characters practiced medicine in Greece, in very early times. But they were distinguished rather as exceptions, than rules. Sufficient importance was not attributed to a widely spread knowledge of the medical art, to result in the establishment of schools of medicine, until after the nations of Greece had perfected, and tested, their political strength; and had, moreover, advanced far enough in other branches of science and art, fully to appreciate the importance of a medical education, and to be able to acquire and impart it with facility.

As soon as the nations of Greece were thoroughly organized,

and the versatile genius of their people could be turned towards the more polite departments of learning, it was employed in gathering together facts and principles from the chaotic masses of Egyptian knowledge, and in recording, arranging, and generalizing them. Some Egyptians travelled into Greece. All learned Grecians travelled into Egypt, and into other countries-especially Babalonia, and Syria, and perhaps into the remote East, where nations of a similar origin, preserved to some extent, customs similar to those of the Egyptians. When Greece had accomplished her collection of facts, or, more properly, as she accomplished it, her institutions encouraged their discussion and arrangement. Her philosophers were not confined to particulars alone and isolations. They were permitted to examine the harmony and perfection of groups, as well as the nature and relations of particulars. Sciences were at length definitely organized and described; and parts fell naturally and fitly. into their places in the perfection of wholes. When this was accomplished, and the records made up, the mission of ancient Egypt was fulfilled, and the world turned to the Greeks for that knowledge. digested, which they had obtained crude, from Egypt.

Preparatory to examining the circumstances attending the final and perfect transferrance of medical science from Egypt into Greece, and to the description of its spread, and its professors in the latter country, it is proper to notice the condition of the medical art there, in the earliest ages of its appearance amongst its inhabitants.

The state of advancement among the Greeks, before they had established an intimate intercourse with Egypt, was but small, in any of the polite arts and sciences. Medicine, among the others, was but little studied, and little practiced. The great dependence of the Grecians upon the Egyptians for the fundamental ideas of all their superstructure of learning can be understood, when the fact is stated by Herodotus, that the entire religion—all of the gods of the Grecians, with two exceptions—were borrowed of the Egyptians. Still, there was enough known of medicine, or of some of its prominent practitioners, to command considerable attention, and occasional notoriety, even in quite early periods of the history of Greece.

The earliest physician in Greece, of whom any connected accountermains, was Melampus. Driven from Pylos, he chose Argos for

his residence. He was very famous as a soothsayer and poet, or bard, as well as a physician. By what is written of him, by Homer, it would seem that he settled in Argos, as a retreat from persecution. odotus gives a different account of him. "Melampus was invited from Pylos by the Argives, for a certain proposed compensation, to remove a kind of madness which prevailed among their women. manded of them half their kingdom, upon which the Argives left him with contempt. But upon the malady among their females increasing, they desired to accept his terms, but he then demanded a third part of their kingdom, in addition, for his brother Bias. Compelled by necessity, they acceded to his terms." (Calliope. xxxiv.) It must be owned that much that is written of Melampus, savors of fable. Yet, so much is written of him, circumstantially, and his practice is often so well defined, besides his reputation was so long respected, that no doubt can be entertained of the possession by him, of great medical skill. The incidents related above by Herodotus, respecting Melampus, are by no means incredible. The respect shown to him, and the greatness of his demands. and rewards, are but a few, out of numberless examples indicative of the high regard paid to good physicians, by the nations of antiquity. Although the circumstance of Melampus having received half the kingdom of Argos, as a professional fee, may not be strictly true, and its record only indicates the reception by him of an immense reward, as well as the possession of a previously great reputation—it still should be remembered that the kingdom of Argos, in those times, could not have been either very powerful, or extensive, or wealthy. In all probability, it contained but a few families, among the females of which, some disease, incident to the sex, had appeared-most likely it was of a puerperal nature-such being frequently epidemic, if not contagious.

Melampus is said to have cured the daughters of King Protus of melancholy, with *Black Hellebore*. From that circumstance, that drug retains, even now, the name of Melampodium. *Black Hellebore* was a favorite remedy with physicians of antiquity. Melampus also cured sterility, with the rust of iron in wine.

There is no reason to doubt that Melampus was really a skillful, and scientific physician. The respect with which he is mentioned by the ancients, his wide-spread reputation, and the convictions of

his cotemporaries, that he was possessed of almost miraculous power: the durability of his fame, his recorded triumphs over fearful diseases, minutely described—all testify to the reality of his attainments, and success. It is also a little remarkable, that his exploits as a physician, especially relative to the use by him of natural means of cure, were performed upon the diseases incident to the female system especially. If this is not a very remarkable accident. it is indicative of uncommon advancement in the science of medicine, by Melampus. When diseases incident to the female sex are separated into a distinct branch of study, and particularly, when those diseases are evidently understood, and skillfully treated, then medical art has become enlightened, and elevated high above vulgar prejudice, or chance, or superstition. Melampus was no less distinguished as a soothsaver than a physician :-- so great was his reputation, as a person skilled in divination, that it was customary for those who followed the profesion of predicting future events, in after ages, to claim kindred with him, and to profess to operate upon his plans. This was a common kind of trick among the ancients. Numberless pretenders aped king Solomon, and probably fastened upon his character some blemishes and weaknesses, that it does not deserve. Even Hippocrates, claimed to have been descended from Esculapius. Many of the present day will be likely to attribute the skill and success of Melampus in soothsaying, to his real knowledge of medicine, and the natural sciences.

In contemplating the history and character of Melampus, the enquiries naturally arise, how it was, that a solitary individual, in se remote a period of Grecian history, as that in which he lived, came into the possession of so great and varied knowledge; and, also why the art of medicine did not continue to thrive from and after his time? Happily, facts and hints in the history of Melampus, sufficient to afford satisfaction on these questions, remain.

"It was Melampus," says Herodotus, "who first taught the Greeks the name and sacrifice of Bacchus,"—"I therefore pronounce him to have been a man of wisdom, and of skill in divination. Instructed by the Egyptians in various ceremonies, and particularly in those which relate to Bacchus, with some few trifling changes, he brought them into Greece," (Eut. xlix.) It should be mentioned that Herodotus intimates in the same place, that Melampus might

and his Syrian companions. Perhaps it is of no great importance to decide whether he obtained his knowledge from Cadmus or from Egypt directly. It is certain that Herodotus gives to Egypt the maternity of the Bacchanal rites; and expressly declares, that those rites introduced by Melampus, were too similar to those practiced in Egypt to admit of the idea of simple coincidence. Besides, it is generally believed, that Melampus traveled into Egypt, and was instructed there. And this is by far the most rational explanation of his extraordinary proficiency in the medical art, and in the mysteries and rites, then considered as collateral branches of science with medicine. This explanation is particularly satisfactory, because it is also most in accordance with history.

Notwithstanding the reputation and success of Melampus, no pupils of distinction seem to have arisen up around him. His light shines alone, without any others, with, or near it. Herodotus affirms that Melampus, "did not sufficiently explain the mysterious import of the rites of Bacchus," whence may reasonably be inferred, that he was chary in imparting his knowledge to others. This was without doubt the fact. Explanations may be easily offered for it; although, the fact being known, they may appear more fanciful or enrious, than really useful or necessary.

From the history of Melampus, it may be inferred that he was a man of an ambitious disposition. Finding his knowledge of so much avail in the prosecution of plans of an ambitious nature, he could not long remain in ignorance of the fact, that, "in society knowledge is power." Hence, nothing could be more natural, than that he should be unwilling to impart his skill to others. Such selfances may appear, in modern days, very ungenerous, and mean; yet, when it is remembered that he was alone in his skill in the country where he lived, and that it was not easy, as in modern times, to make a selection from numerous sources of instruction, his conduct does not seem to contrast so strongly with the involuntary liberality of modern professors, as might otherwise appear. To share his knowledge with others, in that age, would be almost like a modern potentate dividing out his power voluntarily.

In addition to being actuated by such motives for retaining within bimself the knowledge he possessed of physic, Melampus most likely

had but a poor prospect of working refinement and skill, into the rough, and adventurous, and idle youths of his times, in his country. The roving spirit of those ages, had but little sympathy with the patient labor and inquiry, necessary to acquire a knowledge of the art of medicine, as practiced by such as Melampus. War and adventure, were the roads to honor, as they were the delight, also, of the ancient Greeks. They were content to leave the peaceful arts to such as happened to possess them; to honor them and reward them when they became necessary to their welfare, and perhaps, sometimes, to prize them more highly, as they understood them less.

Perhaps another cause operated, either alone, or in conjunction with these, to prevent a general spread of medical science from the instruction and example of Melampus. It is well known that knowledge, among the ancients, was in the possession of the priests chiefly, if not exclusively. In imparting knowledge, many mysterious ceremonies and rites had to be performed. Introducing a new science was equivalent to introducing a new form of worship, if not an entirely new god also. Melampus introduced the worship and mysteries of Bacchus into Greece, yet he did not fully explain them. Independently of selfish reasons for retaining them and the art of medicine, which was most likely, at least in part, contained in them, to himself, he may have found difficulty in introducing new and strange ceremonies of a religious nature into Greece, in a sudden manner Liberal, as many of the ancient nations undoubtedly were, and the Greeks among the rest, it was still not always possible to impose upon them new and strange gods. The celebrated Anacrasis, the Scythian, is said by one account, to have been slain in an attempt to introduce certain religious rites into his own country.

There seem to be, then, several plausible explanations of the fact, that medicine did not flourish in consequence of the example of Melampus, in Greece, without resorting to a doubt of his own real, and indeed, indisputable skill in the healing art.

# CHAPTER VIII.

EMENT OF MEDICAL SCIENCE IN GREECE, DURING THE HEROIC"
AGES.

to Thessalian—His various accomplishments—His school—Frequented by noble in the consolidating influence upon the mind and political strength of Greece—ill in medicine—Esculapius—Disciple of Chiron—Testimony of Pindar—Ins—Machaon and Podalirius—Dictine of Medicine in Greece.

· Melampus, the next personage distinguished for medical Greece, was Chiron, the Thessalian. Like most of the s that were distinguished for learning and skill. Chiron was trious family, and like them, he also was distinguished for l in music and magic, as well as for his proficiency in the seful sciences. To Chiron, learning had a peculiar charm; ae others who have succeeded him, he paid his addresses, rsevering and impartial ardor to all of the muses. He disthe pomp and cares of power; and that he might enjoy the ation of books, and the records of the past, as well as the e of meditation and experiment, he withdrew to a cave at the mount Pelion. But, attracted by his reputation, and influlso, no doubt, by the singularity of his history, a consideraiber of the most promising youths of the country soon gathound him; so that his school became the most popular one of and has been celebrated, on account of its illustrious pupils v succeeding age.

i panegyric, however, often beightens the real color of virde conceals errors. It is a very common failing in treating bject, to make too much out of the materials offered for disc. It should, therefore, be borne in mind, while speaking of, and his pupils, that the latter were not, in every respect, ldren of his efforts. His pupils were youths of noble concedestined, by the laws and customs of their countries, to mies and legislate, and administer laws. It must not be suptherefore, that they had not other masters besides Chiron,

in the several departments of learning, which their birth and destiny required of them to pursue. That Chiron was the most distinguished of all the preceptors of Grecian youth, in his own time, is undeniable; and being by birth, a companion and counsellor, as well as by ability and choice, a preceptor, his instructions, no doubt, had great weight upon the minds of his scholars.

Yet it cannot be denied, that the school of Chiron-whether designed by a wise foresight of his own, or not, can never be knownby the congregation of noble youths it gathered together, the acquaintance and friendship there formed between them, and the sympathy necessarily arising from the imbibation of similar principle, from the teaching of the same master, at the same time-had, in addition to a general spread of useful knowledge, the effect of consolidating the petty principalities of Greece, into a unity of custom, of principal and of action. This unity of feeling, and the personal intercourse between the young princes of Greece, occasioned those concerted and persevering efforts during the Trojan War, as much, or even more, no doubt, than the oath the leaders in that undertaking are said to have taken, respecting the protection of the fickle Helen. This result,—the consolidation of the mind, and, in some degree, of the forces of the Grecian States, grew,-although quite likely unintentionally—out of the school of Chiron. It is but little wonderful, that a man of so great good qualities, and one to whom all could look back with kindred feelings of regard and admiration, should be frequently spoken of, by the heroes of the Trojan War; or that they should all be proud to own themselves his pupils.

But Chiron is also celebrated for his instructions in sundry useful sciences, and especially in the science of Medicine. The great Achilles was a pupil of Chiron; he is celebrated for his skill in the healing art, as well as for his prowess as a warrior. But in Esculapius shown pre-eminently the wisdom of Chiron as an instructor in the medical science. Esculapius, in common with the students of Chiron, was most likely of noble birth. This is more probable from the fact, that he was called the son of Apollo; although his divine origin was, perhaps, attributed to Apollo in preference to other gods, from the fact of his being skillful in the art of medicine, over which Apollo specially presided. Esculapius flourished duing the Trojan War. He was older, however, than the chief

actors in that war, for he had sons old enough to hold command of forces during its continuance. Esculapius himself, was indeed one of those who, in the age previous to the expedition of the Greeks against Troy, engaged in the enterprise of the Argonauts, who started from Thessaly in search of the golden fleece.

Many, from a superficial study of the history of medicine, have regarded Esculapius as the father of that science. Even in ancient times, he was esteemed to have been the founder of the medical art. There can be no doubt that he must have been well adapted in his intellectual organization, for the practice of physic. His energy and devotion to his profession, together with the skill he undoubtedly possessed, of applying the knowledge he had obtained from others, as well as that which had resulted from his own observations and experiments, to the the cure of disease, and the mitigation of pain, made a deep impression upon the minds of those amongst whom he lived. The necessity which such an expedition as that of the Argonauts must have felt for good medical advice. and the elements of that necessity being so happily filled in the possession of Esculapius, could not otherwise than result in lasting gratitude and favor to him. Chiron taught, and was also the friend and counsellor, of the noble youths of Greece. They remembered him, and honored him; and his fame will never die. Esculapius was Chiron himself, in active, practical life, in one of his characters, (that of Physician); and he proved a worthy successor to him, and a truthful exponent of his principles. Perhaps the expression would not be too bold to say, that Esculapius was a volume of Chiron, with notes and explanations. To the modern world Chiron, in medicine, so far as Ancient Greece was concerned, was the theory and Esculapius the practice. Without Chiron there would have been no Esculapius, and without the energy, perseverance, and bravery and skill, of Esculapius, Chiron would have been useless, and probably unknown.

Many are the inventions collateral with medical science, that are attributed to Esculapius. It is unnecessary to enumerate them, because of the doubt that exists relative to the alleged facts themselves. Such a reputation itself is all that is necessary as illustrating the truth, that Esculapius possessed great skill as a Physician, and practiced the medical art in a diversified and natural way,—in

such a manner, in fact, as leaves no doubt that his dependence was not placed chiefly in charms and mysterious rites, which always have a more or less constant character—no matter what may be the nature of the malady for the cure of which, such are employed. It would seem that he was little addicted to the employment of a certain system or formula of ceremonies, or even of remedies for all classes of diseases, as was common to many of the pretended physicians, and the enchanters of ancient times—such as, according to Josephus, Solomon, himself, invented. According to Cicero, Esculapius was the inventor of pulling teeth.

Pindar, well versed in the antiquities of the Greeks, speaks in high terms of the medical skill of Esculapius—

"Of those whom nature made to feel
Corroding ulcers gnaw their frame,
Or stones far hurled, or glittering steel,
All to the great physician came.
By summer's heat or winter's cold
Oppressed,—of him they sought relief,
Each deadly pang his skill controlled,
And found a balm for every grief.
On some the force of charmed strains he tried,
To some the medicated draught applied,
Some limbs he placed the amulets around,
Some from the trunk he cut, and made the patient sound."

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These lines coming from Pindar, contain great praise of Esculapius. If they really contain the literal truth, they indicate a considerable degree of knowledge of the causes of disease, as well as unequivocal skill in curing it. In a warlike age, and among warriors, it is but natural to suppose, that treatment of wounds would occupy a leading place in the practice of medicine. In addition to a knowledge of surgery, the reference to diseases incident to climatic influences, evinces some degree of information respecting the natural causes of epidemics—while the general character of the treatment described, well comports with the nature of the superstitions of the times, as well as with an advanced condition of surgical art. How much efficacy was really attributed to charms and the magical influences of amulets and music, in the cure of diseases, by such men as Melampus, and Chiron, and Esculapius, cannot be told. But it is quite possible that, after all there was not

a great deal. The fact that Esculapius was an old man, about the time of the Trojan war, was, no doubt, the reason why he was described by those living at that period, as a venerable personage, with a long beard, and leaning upon a staff. Under such a form he was afterwards worshipped—or, sometimes under the form of a serpent—distinguished by ancient nations as the wisest of all the lower animals.

Patroclus is represented by Homer, as curing a wound of Euripylus, by applying an infusion of a certain bitter root to it.

But, after Esculapius, his sons, Machaon and Podalirius, were more celebrated by the ancient Grecians, as physicians, than any Medicine, which seemed to have been practiced by Esculapius as a whole, in all its branches, appears to have been divided in his sons. Machaon is celebrated for his skill in chirurgical operations: while Podalirius was equally distinguished in those branches of physic, founded upon principles and reasonings. The distinction here indicated, between the surgeon Machaon, and the general practioner Podalirius, is unmistakable. Indeed, the same general distinction in the classification of causes of diseases, is made by Pindar in the lines quoted relative to Esculapius,—where he mentions the disabled from wounds, and ulcers, and those sick from climatic impressions. Podalirius on his return from the Troian war, being driven upon the coast of Caria, cured the daughter of Damæthus, who had fallen from a hight, by bleeding her in both arms.

After Esculapius and his sons had brought the profession of medicine into great repute, throughout Greece, it fell into comparative neglect with their death. According to Pliny, it was not revived; antil the time of Hippocrates, into anything like respectable animation. Although this is not quite true, it is not the less certain that it was several centuries before it regained its ancient though evenescent reputation.

A little reflection will serve to moderate the very natural suspicion that must, at first, accompany a knowledge of this fact. The earliest Greek physicians, Melampus, Chiron, Esculapius and his sons, lived in those ages of Grecian history when men were congregated from all parts of the world; when Phænicians, Egyptians, Phrygians, and Babylonians mingled together, and imparted to each other

the wisdom of their respective countries. In addition to this, without doubt, the intercourse and acquaintanceship between men of different nations, encouraged travel, and facilitated the acquirement of Melampus traveled into Egypt. There is no reason to deny, but there are good circumstantial reasons for supposing—that the other physicians of those early days had access to the most perfect sources of instruction, either in foreign countries, or through the medium of foreign instructors. The very perfection of the science of physic, as it is displayed in what is known of the practice of Melampus, and of Esculapius, indicates no ordinary, or accidental sources whence they derived their knowledge of their art. Their practice was such as bore the marks of age and maturity, and such as could be obtained in no accidental way, nor in any brief time. The decay which overtook the science of medicine in Greece, as soon as the country became older and more settled, and communications with other countries became more unusual,-and, where they did exist, were continued only for purposes of plunder or traffic, or, occasionally for purposes of legislative improvement-also, is evidence insurmountable, that it was built up in the first place, of material from without. It perished in its season, and none supplied its Hence the brilliancy of medicine among the most ancient of the Greeks;-hence its early and abrupt extinguishment.

The knowledge of the early fathers of Greek medicine, was indeed extraordinary. Possessing unsurpassed facilities for acquiring what was known throughout the different countries of the world, concerning the science of medicine, they were bound in its application by no superstitious observances, or arbitrary rules of practice. They had the privilege of concentrating medical knowlege, and, unlike the Egyptians, of uniting medical practice. The attention that they bestowed upon diseases, as they were presented in natural groups,—as diseases of females, surgical diseases, and diseases of miscellaneous characters, shewed in them, a degree of enlightenment in medical science that may well command the admiration of all posterity; while the peculiar circumstance of their living in an age when the Greeks were engaged in great common enterprises, afforded to them opportunities for displaying before a united people, the triumphs of their art, and of thus securing a universal reputation.

It should by no means, be supposed, that Physic was not extensively practiced in the comparatively dark ages of its Grecian history, that intervened between the time of the Trojan war, and that period when it broke out into new splendor, in the maturity and decline of the Grecian nations. But the condition of medical art. from a period shortly after the expedition against Troy, and the beginning of the troubles with Persia, was imperfect, and of little respectability. Practice degenerated into superstitious rites, and depended upon the interpretation of oracles, and the most trivial, and ridiculous deductions from accidental ocurrences of various kinds. When it was attempted to practice medicine upon rational principles, at all, it was confined to the application of remedies said to have been used by Esculapius himself, some of whose prescriptions were preserved in temples dedicated to him, and were engraven upon tab-To this blind and unphilosophical routine, the exislets of marble. tence of which betrays an ignorance of the great principles of health and disease, upon which all rational practice of medicine dependsthere were but few additions made for several centuries; and of what there were, it is doubtful if many were of much value. true, no doubt, that much true knowledge, possessed by Esculapius, and probably by other ancient physicians of repute, was preserved in these temples; but it was of comparatively little value, as a guide in medical practice, without an understanding, on the part of the practitioners, of the elementary principles, upon which the prescriptions were themselves founded. In the later periods of Grecian medical history, the true value of the legacy of medical knowledge left by Esculapius, was appreciated. When Hippocrates turned his attention to medical investigation, and the doctrines of the Pythagorean school began to occupy the attention of men, and exert the influence it did upon all the learned-either directly or consciously—then, the real wisdom of Esculapius, which was before acknowledged in a dim and indefinite way,-became fully understood, and its practical benefits realized. Then, the wisdom and power of the god of medicine was found to be human, and useful and applicable,—and the Greeks learned from Pythogoras and from Egypt the true wisdom of Esculapius; and the real advancement which his energetic and generalizing mind had made upon the miscellaneous knowledge of his Egyptian and Phænician cotemporaries.

# CHAPTER IX.

# SITUATION OF MEDICAL SCIENCE DURING THE MIDDLE AGES OF GRECIAN HISTORY.

Depressed state of medical science after the time of Esculapius and his sons—medical customs of the Athenians—freeborn women permitted to practice physic—practice of midwifery very ancient in Athens—institutions of Lycurgus—inimical to the spread of learning—depressing influence upon the pursuit of the medical art—their uncharitable and selfish nature—medicine among the Scythians—use of Castor as an antispasmodic by them—comparison between the Athenians and Lacedemonians.

Men of mediocrity of genius are not without influence: but their influence is exhausted upon their own kind. The influence of the mass of minds is seldom felt by the higher order of intellectual organization. In describing the exploits of an army, historians properly lay particular stress upon the few leading spirits that plan the campaign, and direct the force of the power under them. names of the private soldiers are never heard. Just so, it is unnecessary to enumerate a list of medical practitioners who followed in the tracks of the illustrious fathers of Grecian medicine; and who had no plastic or bending influence upon medical science. It may be, that they filled the necessities of their own times, in the profession they practiced. But they did no more; their efforts, and even their existence, conferred no durable reputation upon the medical art; nor did they add anything useful to it. It is but just that they should pass away with the gliding years of their own generation;—if not to be mentioned with reproach, (for they were under no obligations to posterity,) yet to receive no honors.

Before proceeding to consider the state of physic in later periods of Grecian history, and note its real, its splendid achievements, and its exalted position then, it will be proper to notice some of the usual customs and laws regulating the practice of medicine, in some of the Grecian States.

It was a law in Athens, that no slave, or woman, should study or practice physic. Subsequently this law was changed, so that all freeborn women had the privilege of learning and practicing physic. (Potter's Grec. Ant. p. 144.) The incidents which occurred in causing the modification of the first law, into the second, throw some light upon certain of the medical customs of the Athenians. The anvient Athenians, (according to their law,) used none but men mid-But the modesty of many women was such, that they suffered, and even perished in child-bed rather than make use of the services of males in their delivery. To obviate this difficulty, a women named Agonice, disguised herself, and studied physic under Herophilus. After accomplishing herself in that art, she discovered the matter to those of her own sex. Hereupon she was overwhelmed with business. The other physicians, unable to understand so extraordinary, and sudden a preference for Agonice, imagined that some improper influences were used by her, and had her cited before the Areopagus, as a person who debauched men's To obviate the danger threatened to her, she revealed the secret of her sex. But this exposed her to new dangers. physicians changed the nature of their complaint, and she was tried for violating the law, that forbade women to study or practice phy-However, the matrons of the city, appealing to the Court, not as to judges, but as to husbands, the Athenians repealed the old law and passed one permitting free women to engage in the medical profession.

The practice of midwifery, therefore, was of very ancient date in Athens, and no doubt in other parts, also, of Greece. The incident related of Agonice proves that it was an important branch of the medical art, and that the dangers arising from the neglect of it, were esteemed great.

Lycurgus flourished about nine hundred years before the Christian era. His laws were well enough calculated to improve the physical health and strength of the Spartans. But they were emiliantly selfish in their intentions, and in their results. The perfection of the physical body—the improvement of the animal stock of mankind,—was the chief end designed to be attained by the operation of the institutions of Lycurgus. Among the laws of the Spartans, were many that were absolutely inimical to the highest devel-

opements of the intellect, and more yet, that smothered the finer moral sensibilities of the soul. The Spartans were taught to ensnare, by falsehood and deceit, rather than overpower by intellectual strength, or even by sophistical strategy, in their treaties with other nations. So little compunction had they to resorting to the broadest falsehood on occasions of public negotiations, that Alcibiades made them the dupe of their own arts, when he was contending against Nicias before the Athenians, upon the affairs of Sicily. special instances of extraordinary genius were not common in Sparta. There were no occasions for its display offered there. The dullest, and the brightest, learned and practiced by a kind of rote, all the customs, and laws, and maxims that were permitted to enter into Lacedemonian affairs, either political, religious or military. A blind deyotion to the State-or rather to themselves, made the Lacedemonians the natural enemies of all foreign countries, and foreign man-The sentiments of the Spartans, which, to some, seem to have been the result of a patriotic love of country, were the offspring of the most narrow, selfish and uncharitable kind of feelings. Generous sentiments were almost unknown in Sparta; and it was seldom that in the hour of success, the Spartans allowed sentiments of pity or humanity, to interfere with their selfish policy.

In such a constituted government it may justly be inferred, that polite and humane arts found but little encouragement. If physic ever had any great reputation with the Spartans it must have soon succumbed to the destructive influence of their uncongenial customs.

Lycurgus is spoken of by Plutarch, as prevailing upon his sister-in-law, not to take medicines to facilitate an abortion. The custom instituted by the same lawgiver, of destroying weakly and unpromising infants, betrays, either great ignorance, and a contempt for medical art, or a settled determination to obviate all trouble about raising sickly children, as well as to prevent the natural display of tenderness and favoritism, which always prevails in the parental breast, in relation to feeble or deformed offspring. This, though one of the most amiable traits of human character, might have had a bad influence upon the effect of the course of instruction, provided by the Spartan law, for youth.

The regulations instituted for hardening infants were such, that neme but the most robust and hardy could survive them. They indicate nothing upon which to found an exalted opinion of the wisdom of the Spartans, in bringing strength out of weakness. Compared with the other principal States of Greece, the world is but little indebted to Sparta, for any of the benefits it now enjoys.

The Scythians had some very wise men among them, but there is no evidence, that any of them ever made any remarkable advancement as physicians. It is certain, that in early times, no Scythian physician eyer exerted any permanent influence upon the character of medical practice, or added any useful knowledge to the science of physic. It may not be uninteresting to mention, however, that in a description of a Scythian notion, by Herodotus, (Mel. cix.,) he describes a large lake with a marshy margin, inhabited by otters and beavers, whose testicles, he remarks, were in great estimation, as a remedy in hysterical diseases. This is pretty good evidence of the antiquity of the practice of using Castor as an anti-spasmodic in nervous complaints.

Before entering upon the history of the rise of the medical sciences in Greece, just before the Persian war, it will not be improper to notice the peculiar character of the Athenians. The levity of that remarkable people was tempered with wisdom. Their apprehension was quick, and their intelligence general and versatile. Fond of leisure and recreation, they mingled the pleasures of intellect and reason with those of the senses. They were ever ready to reward wit and eloquence, and even their punishments were inflicted in the midst of fun and frolic. In short, they mingled the beautiful and pleasant with the useful and necessary. They were, especially in the latter days of the republic, the patrons of literature and learning. They rewarded real merit, with a lavish liberality, and they were no mean judges of it. The citizens were encouraged to attempt and to dare-for an appreciation of merit was always meted out to it—and even strangers of distinction, were encouraged to live and teach among them. The Lacedemonians, on the contrary, had their sentiments, their course of education, their habits and opinions, established and prepared for them, centuries before they were born. Their education consisted in habituating the youth to these; and the more servilely they were adopted, the more perfectly finished was the Spartan student. The modern world judges righteously between these two peoples, and the Athenians receive the praise that the benefits the world has derived from their example, and their knowledge, render their due. Even Rome, herself, although in the earlier periods of her history, she adopted institutions and manners similar to those of the Lacedemonians, never made any remarkable advancement in any enterprises that were not strictly selfish, until she studied the learning of the Athenians. She did not know how beautiful and how good the learning of Athens really was, until she was fast approaching her dissolution.

Except the distinguished physicians already mentioned, who flourished about the time of the Trojan War, there were no physicians but a few in Greece,—who followed their footsteps in an imitative way,—for several centuries. Egypt, and Egyptian learning, however, remained the same, and subject to the same restrictions and peculiarities.

To fully understand the causes which contributed to the final elevation of medical science in Greece, and through it, in the present world,—and to give each cause its proper weight, it will be necessary to enter into some historical details relative to the persons and places that had an agency in affecting it.

# CHAPTER X.

A NOTICE OF THE REGENERATION OF MEDICAL SCIENCE IN GREECE, CONSEQUENT UPON THE TEACHINGS OF PYTHAGORAS.

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Medical science in Persia—foreign physicians patronized by the kings—Egyptians—history of Democedes—Pythagoras—his love of wisdom—his travels—his sojourn in Egypt—familiar with the Egyptian priests—retires to Crotona—works a reformation, and establishes a school there—institutes a secret society—skill in medicine—Pythagoras compared with Chiron—decline of Egyptian influence—intercourse between Democedes and Pythagoras.

Rollin remarks, that, although the science of medicine languished in Greece after the Trojan war, it was nevertheless always cultivated in Persia, and consequently held in great estimation there. Cyrus the Great always took a number of physicians with him in his expeditions, and his rewards to them were of a most liberal kind. It is certainly true, that the Persian monarchs were liberal patrons of the medical art; but there is little evidence for asserting that the Persians themselves, were very skillful physicians, or that, in their own country, medical science was successfully prosecuted. It is a matter of history, that Cyrus the Great, sent to Amasis, king of Egypt, for a skillful occulist, to attend to an opthalmia, with which he was afflicted. It is a fact also, attested by Herodotus, that Darius Hystaspes, kept a number of Egyptian physicians about him all the time, who were then esteemed the best in the world. Such incidents betray the nature of the respect paid by the Persian monarchs to medicine, in their earlier history; and the regard with which they treated Greek physicians, in after times, proves that it was not in Persia that medical education was fostered, and that it did not rise to eminence there.

Not long after the destruction of Smerdis, the magician imposter, and Darius Hystaspes was seated upon the throne of Persia, (about B. C. 520,) that prince received a fall while hunting, by reason of which his ankle became dislocated. He entrusted the injured part to the skill of his Egyptian Physicians. But they failed to effect a cure; and either did, or the king fancied they did, increase the

evil, by awkward and rough handling. Unable to obtain sleep for several days and nights, on account of the great pain he suffered, some of his attendants who had heard of the reputation of Democedes of Crotona,—then a prisoner in his power,—as a skillful physician, ventured to recommend him to the notice of the king. was summoned by order of Darius, and appeared before him in chains and rags, as he had been kept, while in custody as a slave of Orætes,—formerly an officer under the government of the king. At first Democedes denied any knowledge of medicine; but when about to be put to the torture, he confessed, that though he had no regular medical education, according to the rules of the ordinarily established schools of medicine, yet, on account of some intercourse he had once had with a physician, he had obtained some skill in the healing art. The case was given into his care, and by the application of fomentations suitable to the swollen and inflamed condition of the joint, Darius was enabled soon to resume his usual avocations, (Herod. Thal. cxix. cxxx.)

A superficial view of the case of Darius, is calculated to leave upon the mind, a mean idea of the capacity of the Egyptian physicians employed by him, and instill a high respect for the skill of Democedes. An analysis of the history of the misfortune of the king, and of the means employed in effecting his relief, however, will not redound to any especial injury to the reputation of the Egyptians, while it will justify the high opinions expressed by historians, of the skill of Democedes. The nature of the injury of the king was serious. "ankle was quite dislocated,"-or as Rollin expresses it, "his heel was put out of joint." The chief complaint of Darius against his Egyptians seems to have arisen from the exquisite pain he suffered. His pain is said to have been increased by the twisting and violent handling of the part by these physicians. No surgeon can doubt the necessity of a speedy reduction of the dislocation, at all hazards; nor will any one imagine that it could be effected without great violence and pain. That it was reduced, however, the eventual recovery of the king clearly indicates; and that it was reduced by the Egyptians is evinced by the fact, that they must have attempted it, in order to have hurt the patient as much as they are reported to have done; and from the additional fact, that Democedes had only to apply simple dressings and fomentations to effect final reliefmeans which never could have had any efficacy in putting in place a joint. Under such circumstances, instantaneous relief was, in the nature of things, impossible. But people enduring great and constant pain, are not apt to be remarkable for patience; and an exalted station, and unlimited power, are not elements in the circumstances of men, likely to decrease the natural petulance of human nature, under conditions of affliction. After seven days and nights of suffering, no doubt but the irritated and inflamed joint had become, to some extent, less excited, and then the fomentations employed by Democedes, might have had a very prompt and salutary influence. His prescription was, without doubt, a good one, and had an excellent effect.

So shining and marked an example, at once raised Democedes to the highest pinnacle of fame throughout the world. He was the first Greek physician who had an opportunity, after the rise of medical science in the latter ages of the history of Greece, of exhibiting in a marked and striking manner the superiority of medical practice condensed after the manner of the Greeks, over its diffuse and multiparte condition among the Egyptians. After the time of Democedes, Greek physicians were held in the highest repute in the oriental courts, while the Egyptians became, at length, entirely neglected.

Respecting the conduct of Democedes, when he was brought into the presence of Darius, interpretations of different characters may be made. Herodotus supposes his motive, in his interview with Darius to have been influenced by a desire to return speedily to his native country; and by a fear that an exhibition of his skill, might result in his detention. It is difficult to see how an honorable elevation in the king's household, would make a return to his native country any more difficult than it would have been, had he continued in the garb and condition of a slave. It is much more likely, that his timidity in undertaking the king's case, arose from a very natural dread, on his part, of the consequences of failure. There is no reason to question the fact, that Democedes was possessed of the same buman properties—the same hopes and fears, as other men. Well knowing himself to be in the power of an absolute monarchamong people of different habits from his Grecian companions, and who had a very small regard for the life of a helpless foreigner and slave; and conscious, moreover, that while he had not pursued his professional studies in the ordinary manner of the Greeks, even—he was surrounded by medical men of the highest eminence, from Egypt; it is no wonder, that he hesitated before he could be prevailed upon to commit himself, and that he denied his skill and opportunities, and modestly claimed to have simply derived a little information on medical subjects, by some "communication with a physician." Reason will appear for believing, that he spoke only the simple truth in the matter; although his friend the physician, happened to turn out to be the revivor of ancient medicine in Greece, as well as the revivor and reconstructor, upon more modern principles, of most of the learning and philosophy of the ancient and Egyptian world.

The history of Democedes, and of his country, and of his associations, is indispensable to a correct knowledge of the final regeneration of medical science in Greece, and its permanent establishment in a new and befitting dress, in the world of learning.

Democedes was a native of Crotona, in Italy. Crotona was founded by an Achean colony, (B. C. 710.) Sybaris, the rival of Crotona, was founded about the same time, by a colony of the same people. For a time, these cities flourished in a remarkable manner. The free and equitable institutions of the mother country were transplanted to them. With true liberality, they received foreigners into their limits, and conferred upon them all the rights and immunities of native born citizens. The wars in Asia Minor, soon contributed to the increase of the population and wealth of the cities of Magna Grecia, and also to the increase of voluptuousness and idleness in them. At length, both Crotona and Sybaris became as celebrated for effeminacy and debauchery as they had been for prosperity and wealth. Such was their character when, about B. C. 550, Pythagoras settled in Crotona. From that period, that city gradually regained its virtue, and became at last as distinguished for the wisdom of its inhabitants, as it had been infamous for their vices. Sybaris did not accept the proffered remedies of Pythagoras, and continued the opposite and the enemy of Crotona, until it was at length destroyed by the Crotonians, under Milo, in a regular warfare.

Pythagoras was born in the island of Samos. His father, Muesarchus, was a man of distinction, and bestowed great pains upon

the education of his son. Pythagoras himself was an admirer of wisdom, and applied himself to rival the wisest men of the world. His education was of an almost universal kind. In his own country he studied astronomy, eloquence and logic; and paid also particular attention to the exercise of the body. At the age of eighteen years, he contended for the prize, in wrestling at the Olympic games.—which he gained. His skill, and sprightliness, and beauty. drew upon him the admiration of the spectators. He was certainly ambitious of renown; and he employed the surest means to obtain it—unceasing application, and untiring vigilance, in seeking out truth, and in applying it to the wants of man. Unsatiated by the knowledge which he had been able to acquire in Greece, he early adopted the resolution, to travel into distant countries, and observe men, and manners, and laws in all their aspects, and under all circumstances. He put his resolution into practice, and became famous, even in the character of a traveler.

By means of Polycrates, tyrant of Samos, Pythagoras was introduced to the highest order of the priesthood in Egypt, where he remained, minutely studying the manners, customs and learning of the Egyptians, several years. He is said to have paid particular attention to religious rites and ceremonies in Egypt—the very institutions said to have been founded by Menes. He also studied the symbolic writing of the priests, and became acquainted with the policy of the sacerdotal order, by means of which it held absolute and continued sway over the kings and the people. Such a course of observation, could not but have made him acquainted with the Egyptian sacred books. The learning that he really acquired, is best measured by the influence he afterwards exerted in establishing rational and permanent ideas, not in philosophy only, but in other sciences, and in medicine among the rest.

After finishing his travels, and concluding his observations, Pythagoras returned to Samos. But he found his native island so completely under the control of Polycrates, that he declined staying there. For it was impossible that such a man as Pythagoras could live, and teach in Samos, while under the capricious government of Polycrates, who, although himself a man of learning, had imbibed the petty jealousy of all tyrants, and even in philosophy, could bear no brother near the throne. Away from home, however, Pythago-

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goras enjoyed the esteem of Polycrates, and in his travels was under obligation to the influence of the tyrant, for introductions in foreign countries, and for enjoying uncommon facilities for aquiring information. Pythagoras, after leaving Samos, went again to the Olympic Games. No doubt his reputation had preceded him. was there saluted with the title of Sophist, which he declined, prefering the then more modest one of Philosopher, or admirer of learning. It is singular, that in ancient Greece, the titles of nobility, which were considered most honorable, were such as were expressive of wisdom and knowledge, rather than of political station, or of the possession of wealth. After spending some time in Lacedemon, examining the political system of the Spartans, Pythagoras took up his final residence in Crotona, B. C. 560. He was then about forty years of age-in the vigor of his manhood, and of his understanding.

What may have been the motives which actuated Pythagoras in leaving Greece proper, where he was held in high estimation, and removing to Italy, it is impossible to divine with certainty. But it is not unreasonable to suppose, that they were various, and mixed. Crotona was very favorably situated, naturally, to become a pleasant and healthful residence. The inhabitants were wealthy, and therefore able to reward his labors—as well as possessed of leisure, and possibly inclination to listen to such moral and rational instructions as Pythagoras was able to bestow. It is quite likely, also, that the peculiar and liberal institutions, of Crotona, which admitted foreigners to an equality of privileges with other citizens, and thus entirely obviated the difficulties that a foreigner would labor under, in other countries, had great influence upon the choice of a residence, by Pythagoras. It is beyond question, likewise, that Pythagoras was possessed of an unbounded ambition for fame. The variety of nations which were represented by the inhabitants of Crotona-especially the soft, but intelligent and unscrupulous exiles from Asia Minor-and the necessary toleration which a variety of habits, of faith, and of pleasures, had in that city, could not help impressing upon Pythagoras the facilities it afforded for introducing, with a prospect of success, his new system of learning and philosophy.

It is a lesson, taught by experience, that a great and difficult undertaking is frequently best accomplished, by gradual and imperceptible advances. In all operations, intellectual or military, a base line is either, intentionally or intuitively formed, from which to act. To have introduced the Pythagorean doctrines, either speculative or those depending upon recorded experience, at once into Greece. would have been a difficult undertaking. Rivalry and opposition ran so high, that an experiment of effecting so radical a change in the knowledge of men, would have met with a powerful resistance. So averse are men to give up cherished ideas, even though they are wrong, and so many interests are threatened by any great moral or political, or intellectual revolution, that the obstacles to be surmounted in the establishment of truth, are not so much the barriers of prejudice and error, as they are the ever present and all powerful opposition of pride, of selfishness, and of base interest. Even in Crotona, Pythagoras had to proceed with great caution; and he commenced his instructions, by instituting a kind of private association, or secret society, by which means there was effected a mutual understanding, and a mutual interest in self-defense, amongst his pupils. Pythagoras might also have been influenced in his choice of Crotona as a place of residence by the very character it sustained, for looseness, and frivolity. No doubt but he had every confidence in the efficacy of his doctrines, in conducing to the moral and intellectual development of mankind. Certainly few cities persented a wider field for philanthropic labors, such as Pythagoras desired to perform, than Crotona.

The reception of Pythagoras in Crotona, was such as to encourage him. His discourses were rational, and he took care to use all his varied arts of eloquence to make them agreeable. In fact, the Crotonians had advanced very far in civilization; they were indeed too much like the double refined society of the politest nations of modern times. "They seemed to have gained knowledge and civility," (and it may be added, frivolous manners, and idle pleasures,) "in proportion as they had lost the purity and simplicity," of the more ancient, and less advanced ages. Pythagoras frequented the temples and public places of the city, and his attractive manners, his curious and useful information, together with his melodious voice, and penetrating eloquence, gradually obtained for him the attention of the giddy public. His instructions became more pleasing than the ordinary pastimes of the day, and it was a fashionable

recreation to resort to his lectures. "The magistrates of the republic erected, soon after his arrival among them, an elegant and spacious edifice, which was appropriated to the virtuous lessons of the admired stranger—who pleased their taste, and gratified their fancy, while he condemned their manners, and reproached their vices." (Gillies' Greece, chap. xi.)

The precepts of Pythagoras were not thrown away. The fruit of his labors soon appeared. The ladies of Crotona threw aside their worthless ornaments. But it is irrelevant to enter into a minute analysis of all the learning that Pythagoras professed and taught. His best students he received into a secret association. The members knew each other by signs. From this small beginning, the Pythagoreans spread themselves, and the learning and fame of their founder, all over the world.

Besides philosophy and moral ethics and mathematics, Pythagoras was deeply versed in the natural sciences. He was celebrated for his skill in medicine, which was farther advanced in his native country than in Crotona, (Gillies' Greece, chap. xi,) but which was still better known in Egypt than in either. It was in this latter country, no doubt, that Pythagoras perfected his knowledge in medical science, during the several years he there pursued the business of observing and learning the wisdom of the Egyptians. "War," says Pythagoras, "should only be made against diseases of the body, ignorance of the mind, passions of the heart, seditions of cities, and discords of families." (Rollin.)

The instructions of Pythagoras were not confined to one, or even a few, branches of learning. Like Chiron, he taught many and distinct sciences. Philosphy, and government, and ethics, and medicine, all were taught by him upon his own plan; which plan was different from that of the settled schools—and experience has proven it to have been better. Like Chiron he lived in the acts of his pupils. And his pupils—being scattered throughout the world, at a period when the wars and convulsions with Persia brought merit into notice and secured its reward,—not only spread the reputation of their master, but unlike those of Chiron, they were also to preserve his precepts as he delivered them, and permit the world to judge the master by his instructions, as well as by the success and standing of his followers.

With the dissemination of the Pythagorean doctrines throughout the world, assisted as it was by the wars and political convulsions of the times, and assisted and rendered permanent and uniform by the operation of the secret society that Pythagoras had instituted, the importance of ancient Egypt, and of her changeless institutions ceased. From that period of time, Egypt is seldom mentioned with the respect and veneration in which she was once held. As a repository of learning, and as influential in the intellectual and scientific world, she soon passed into neglect, and was seldom heard of more.

Pythagoras lived in and about Crotona to a very advanced age. About the period of the death of Pythagoras, or probably a little before, Democedes disgusted with the harsh treatment he sustained at the hands of Calliphon his father, departed from Crotona, and settled in Ægina, a little island not far from Athens. acquired a great reputation as a physician After remaining a year, the inhabitants of the island employed him, in a public manner, at a salary of nearly one thousand dollars per annum. The third year he was hired by the Athenians, at a salary of about sixteen hundred dollars. After this year he was employed by Polycrates, the tyrant of Samos, at a yearly salary of nearly two thousand dollars. He remained in the service of Polycrates, until that unhappy monarch was destroyed by the treacherous conduct of Orœtes, a governor of Asia Minor, under the king of Persia. Democedes accompanied his unfortunate patron in his visit to Orœtes, and remained a prisoner in the hands of the Persian, after the destruction of Poly-Upon the fall of Orætes, by the order of Darius Hystaspes, Democedes found his way, among the slaves of the defunct governor, to the capital of the empire—and it was there, and under the above circumstances, that he was introduced to Darius as a physician.

There is no doubt but Democedes had seen Pythagoras. But even if he had not, the pupils of Pythagoras were yet in their prime, when Democedes flourished. Democedes, after his return from Persia, married a daughter of Milo—a celebrated citizen of Crotona. Milo was one of the earliest followers of Pythagoras,—a favorite pupil of his, as well as his intimate friend and host. For the house of Milo was the home of Pythagoras when he first came to Crotona.

When the admiration with which the personal followers of Pythagoras esteemed him is considered, (his disapprobation being so much taken to heart, that an admirer of his once slew himself, in consequence of receiving, from the philosopher, a verbal reprimand,) and when the bonds of secrecy and exclusiveness, which his pupils entered into with each other for the preservation of their knowledge, the elevation of themselves, and the extension of their influence, is brought to mind, the union of Democedes, with a daughter of such a man as Milo, must pre-suppose a similarity in taste and interest, between the father-in-law and son-in-law, that can at this day be accounted for only upon the supposition, that Democedes was himself a Pythagorean.

It is, by no means, extravagant to suppose, that in the wanderings of Democedes, he received the benefits of the recommendation of Pythagoras himself,—and especially so, relative to his connection with the Samian king. This, however, is conjectural. It is known that Polycrates was diligent in seeking out, and encouraging men of science. His employment in Samos may, therefore, have been only on account of his real skill as a physician. But in the histories of Pythagoras and Democedes, there is seen a singular reflux of medical knowledge from Crotona, upon Samos. "Pythagoras," (says Gillies, chap. xi,) "was especially esteemed by the citizens of Crotona for his skill in music and medicine-sciences better understood in his native country than in Italy." But in addition to the knowledge Pythagoras had attained in his native country, he spent sevral years acquiring the knowledge, and observing the customs of Egypt. He even carried his imitation of the Egyptians so far, that he would wear no dress but linen, which was the dress of the priests in Egypt—and would not eat beans, nor permit his pupils to do so -an article of diet held in abomination by the Egyptians. (Herod. Eut. xxxvii.) Paying so strict a regard to customs apparently so trivial,—it is to be supposed, that the attention he is said to have bestowed upon the more important arts and sciences of Egypt, is not exaggerated. Under such circumstances, it does not seem surprising that Crotona, after reaping the benefits of the instructions of Pythagoras, should be able in a few years, to send to Samos, a man who should command the same admiration for skill in medicine, there, that Pythagoras, the Samian, himself, had done, a little previously, in Italy. That Democedes attained his knowledge of medicine from Pythagoras is supported by the undoubted fact, related by Herodotus, that he excelled the most skillful of the medical profession in Ægina, "without having had any regular medical education." (Thal. cxxxi.) That is, he acquired the skill which he undoubtedly possessed, in a way different from the ordinary course of study, pursued in his times by the Greeks. The way that he actually did acquire his medical knowledge, as he himself relates, before Darius, was through certain communications, or intercourse with a physician. No doubt but this physician spoken of by Democedes was Pythagoras.

All the several incidents related of Democedes then, which have any bearing upon the question of the origin of his medical knowledge, point to Pythagoras as his instructor, directly or indirectly; and also as the founder of the reputation of Crotona, as a seat of medical learning.

It may justly be inferred, that the success of Democedes in relieving king Darius, and restoring him to health, met with a generous reward. Physicians were always held in great esteem by the kings of Persia; and the success of the Greek, raised him to a position of peculiar honor and wealth at the Persian Court. time after the cure of Darius, Atossa, his queen, and a daughter of Cyrus the Great, applied to Democedes, for assistance in relieving her from the affliction of an ulcerated breast. The malady had been of long standing, and was concealed by the queen, from motives of delicacy, as long as she could bear it. At length, however, the sore became of so serious a character, that she applied to Dem-What means he employed in effecting her relief, is not known; but she recovered,—and as Atossa is spoken of as alive many years afterwards, it may be presumed that the cure was perfect. Of course it is impossible to decide whether, or not, the ulcer upon Atossa, was of a cancerous nature.

It is unnecessary to follow Democedes in his personal adventures, that have no immediate connection with his skill and practice as a physician. Suffice it to so say, that so highly were his services valued, that he had to resort to the most ingenious tricks, assisted by queen Atosso herself, and expose himself to great personal danger, to escape from the honorable servitude in which he was held by the

king of Persia. His difficulties in this respect, however, strikingly illustrated the high value placed upon his services, by persons acccustomed to the best medical advice, and to impress the conviction—if there is anything lacking in the evidence besides—of his real merits.

Democedes at length succeeded in reaching Crotona, his native city, considerably enriched by the treasures he was enabled to save out of the fortune bestowed upon him by Darius. It was after this event that he married a daughter of Milo. Except this circumstance—his marriage into the family of so influential and reputable a citizen as Milo undoubtedly was-and which his foreign reputation and his wealth would naturally aid him in accomplishing, there is nothing in history respecting him, that would lead to the supposition, that he occupied the enviable position at home, as a physician, that he had abroad. No doubt but in Crotona, he found the same fountain of knowledge and skill flowing, from which he imbibed the principles of science, that had subsequently proven so beneficial to him, and had made so many and great changes in his worldly fortunes. He there found his old companions, friends and classmates, and assumed his ancient and natural companionship with them.

## CHAPTER XI.

THE GENERAL SPREAD OF THE SCIENCE OF MEDICINE AFTER THE TIME OF PYTHAGORAS.

Simultaneous appearance of enlightened physicians soon after the spread of the Pythagorean doctrines—Empedocles—allusions to the science and practice of medicine become common in books—Xenophon—Ctesias—Hippocrates—lessons derived from the study of the ancient history of medicine.

Assuming Pythagoras to have been the source, whence the revival of medicine spread throughout the world, about the period of the commencement of the troubles between Greece and Persia, it would be natural to suppose, that about, and shortly after, the time of Democedes, there would begin to appear a general and widely spread knowledge of the principles of medical science. The implication is sustained by the history of those times, and of certain individuals.

Empedocles, of Agrigentum, in Sicily, is said by some to have been a disciple of Pythagoras. It is certain that he was a Pythagorean, and he had good opportunities to learn the principles of the Pythagoreans, from the neighborhood of Sicily to Italy; for Pythagoras, although his real residence was in Crotona, extended his influence and even his visits, to the other principal cities of southern Italy. Empedocles was celebrated as a physician, and gained much reputation by curing an Agrigentine woman, named Panthea, after her other physicians had given her up to die. It is said that Empedocles threw himself into the crater of mount Ætna. It is much more likely, that his zeal in studying the phenomena of nature, led him unawares so near to the abyss, that he fell in, by an unavoidable accident.

But the fact of the speedy elevation of medical science, after the time of Democedes, when the disciples of Pythagoras had time to disseminate his instructions throughout the then civilized world, is shown in all the writings of that period. Allusions to medicine, and illustrations derived from the science and practice of physic, become common in books of history, and were in frequent use, in speculative writings upon philosophy and government. They were usually of such a kind as indicated in those who employed them, no contemptible knowledge of the general principles of medicine.

Xenophon frequently draws illustrations from the science of physic, or the proper conduct of a physician. He puts into the mouth of Cambyses, the father of Cyrus the great, words that illustrated the influence of Physicians over the sick, in the later periods of Grecian history; for it is generally admitted, that the Cyropedia of Xenophon, is but a fanciful, or rather philosophical disquisition on the science of government, and illustrations there employed, are derived from his own learning, and are not always historical incidents. "Confidence in the physician," says Xenophon by the mouth of Cambyses, "is the secret of the sick so blindly submitting their health and lives to the operation of medical remedies."

At the battle of Cunaxa, where Cyrus the younger was overcome by his brother Artaxerxes, Ctesias, a Greek physician, in the employment of Cyrus, was taken prisoner. He dressed the injuries of the Persian King, who was wounded in the battle. For many years afterwards he occupied a high station at the court of Persia. Although Ctesias bears the reputation of having been an egotistical and vain man, no doubt can be entertained that he was a skillful physician. He composed a history of Persia, which is mostly lost, but it is spoken of as inaccurate, by most of the writers who succeeded him.

But among the many bright examples that might be noticed, of men skilled in medicine, in a comparatively few years after the period that Pythagoras flourished—none can compare in brilliancy with Hippocrates, of the island of Cos. Without being justly subjected to a charge of speaking fancifully, or of forcing similes, it may be said, that, in many respects, Hippocrates bears a relation to Pythagoras, similar to that which Esculapius was supposed to have borne to Chiron. Esculapius and Hippocrates found the science of medicine laid open to them; but they both improved it. They experimented, and reasoned upon it, and systematized it. The more fortunate situation of the age in which Hippocrates lived,

favored the preservation of his knowledge, and of his improvements. While Esculapius is known chiefly, in his medical character at least, through Hippocrates. But the history of Hippocrates belongs rather to the beginning of the establishment of the science of medicine in the modern world, than to its ancient history. From Hippocrates, the science of physic descended to the modern nations of the world directly. Its uncertainty and its mystery were removed. It was taken from its long locked storehouse in Egypt, and its scattered elements were gathered together, from the nations of the world, and harmonized and enlarged and polished, by the industry, and the reason, and experience, of the Greek; and then committed to the care of the modern world.

There is that in the ancient history of medicine, which is calculated to elevate the understanding and enlarge the heart. The intellectual pride of this day is humbled at the spectacle of intellectual triumphs-in ages far distant in the past-not inferior to those of modern times. Men are taught to measure their acquirements, by the strict modes of truth and merit, and not by a blind vanity. It instructs the wise and simple alike, not to arrogate to themselves, and their own times, the merit of intellectual wealth, that they here inherited from others. It admonishes, in a silent but impressive manner, all, that even conscious worth should be clothed with modesty, and that false opinions are not always a proof of dishonesty or insincerity. Sometimes the rays of the sun so dazzle and confound the sight, that empty space itself may become illuminated, and appear like a true sun. So the brightness of truth may at times be so clear and so dazzling, that error may become effulgent by its rays, and be mistaken for itself;-often, like the moon it shines in borrowed light, but devoid of heat, it warms and fructifies not. So easy is it honestly to mistake error for truth, that it behooves all to beware of dogmatism, and to extend the mantle of charity over ignorance, not only in ages past, but in the present.

To the physician, it is pleasing and instructive to study the ancient history of medicine. He keenly feels, as he reads it, the difficulties and obstacles with which the ancient fathers of medicine had to contend. He enters into their feelings, and rejoices in their triumphs, and shares with them their disappointment. At length, in the pride of their success, in their mastery over the invisible de-

mon of disease, sowing the seeds of death in the bosom of every man, and spreading desolation in the thousands of kindred and sympathizing hearts,—he glories in their power, and is honored in the applause they receive.

The ancients were more grateful for services than men of mod ern times. It was the boast of princes, to entertain and encourage men of learning. Cities and communities, and even states contended for the honor of the possession of a skilful physician, and rivaled each other, in offers of bounty, and honor, to secure his services. Thus, the physicians of antiquity were encouraged to perfect, by every possible means, the science and art of physic; and thus, they were repaid for the toil, and responsibility and inevitable disappointment, that often must overtake the medical practitioner.

The spectacle is widely different in the present age. The vanity of men loves to look upon all the venerable institutions of antiquity with contempt; and even those sciences and arts, built upon the experience of the world-upon experience began in the infancy of mankind, and continued, more or less regularly to the present day -as is the science and art of medicine-are viewed with jealousy and suspicion. The "Young America" ideas, - "the age of progress" in the modern acceptation of the term, is opposed to the stable foundations of experience. There is an effort, or rather a pretension to grasp truth by intuition—to look upon God, and live—in the present age, that has made it the pitiful dupe of egotistical, and of superficial, and utterly impracticable phantasies. The medical profession is maligned. Imposters are encouraged; for their empty vauntings are received as evidences of progress in the age, which agree well with the innate vanity of the times. When an unworthy member of the medical profession betrays it, and brings discredit upon himself, it is charged to the profession at large. Scarcely a soul on earth lives, that is not indebted to the practice of medicine for life. As well might man cry out against the viror at least happiness. tue of his mother, because the sex is dishonored by the meritricity of the prostitute. Every virtue has its similitude in vice; every good in evil; every truth in error.





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